

NICHOLSON, George
2

O.V. FOOD.

"Nature is frugal, and her wants are few."



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PREFACE.

It is a remark frequently made, that "if animal food were not eaten, we could not have a sufficient variety for the supply of our tables." To obviate this objection to a vegetable diet, has been a leading purpose in the following compilation, from which it will appear that a variety of not less than one hundred perfectly palatable and highly nutritious substances may easily be procured, at an expense much below the price of the limbs of our fellow animals. Our secondary objects have been to diffuse more generally an acquaintance with simple compounds, not commonly known; and to impress the propriety of refraining from some pernicious ingredients, which are almost universally used as articles of diet. A consideration very different from aiding the luxury of those who revel in what they term "Table Joys," has had also considerable weight. Whatever savings can be made in the article of food, may, by those who are provident and economical, be wisely converted to the purpose of mental gratifications. Some of the recipes, on account of their simple form, will not be adopted even by those in the middle rank of life; yet they may be valuable to many of scanty incomes, who desire to avoid the evils of want, or to make a reserve for the purchasing of books and other mental pleasures.

In forming this compilation, the materials have been collected from those who have written on the different subjects with uncommon attention; from the experience of friends; or from observation. A complete book



of cookery has not been intended; the preparations of food, therefore, most universally known, have been omitted.

From the unreflecting, from those who conform implicitly to custom, or from those whose minds are prejudiced, the compiler expects to receive unqualified censure; but by those, at least, who have adopted a frugivorous diet, this tract will be favourably received. From the latter, communications, corrections, and enlargements, for a future edition, are respectfully solicited.

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OF FOOD IN GENERAL.

No animal eats such a variety of food as man. He devours the productions of every climate; and calls in the aid of cookery, an art peculiar to himself, by which things prejudicial, or even poisonous, can be rendered wholesome and salutary.

The excesses of mankind have reduced Cookery almost to a Science, and their departure from nature and simplicity has contaminated their minds and bodies; from hence arises an inexhaustible source of imbecility and disease.

It is a maxim, as ancient, perhaps, as the time of Hippocrates, that "whatever pleases the palate nourishes." If this could be clearly ascertained and demonstrated, the business of cookery would have a respectable place among the arts.

In the consumption of food we are subject to error, especially as to quantity. It may be held up as a salutary rule, that a small portion of food should be taken at a time; because a large portion cannot be so conveniently digested or converted into chyle. An immoderate quantity also injures the coats of the stomach, distends the vessels, and destroys their powers. Dr. Willich has given the following rule, from some reasoning on this subject; "*eat as much only as is necessary to supply the waste suffered by the body;*" urging, that "if we transgress against this rule, we produce too much blood; a circumstance as detrimental, though not so dangerous to life, as that of having too little. The most simple dishes are the most nourishing."

The multiplied combinations of substances, tho' they may please the palate, are not conducive to health. All substances containing much jelly, are nourishing, for this alone affords nutriment; the hard, watery, and saline particles of food cannot be assimilated or converted into chyle." In the course of this author's remarks on Food and Drink, he says, "*It is an important rule of Diet, to eat, if possible, of one kind of food only, or, at all events, to eat of that dish first, which is the most palatable.*" The stomach is enabled to prepare the best chyle from simple substances, and will thence produce the most healthy fluids. At a table dietetically arranged, those dishes which are most difficult of digestion, should be partaken of first, and the meal finished with the most easy; because the former require stronger digestive powers, and more bile and saliva, all of which become defective towards the end of a heavy meal. To begin meals as the French, Germans, and Scots generally do, with soups or broths is highly improper. These liquid dishes are ill calculated to prepare the stomach for the reception of solid food; as they not only weaken and swell it by their bulk and weight, but also deprive it of appetite for the succeeding part of the dinner. Besides, thin broths and soups require little digestion, weaken the stomach, and are attended with all the pernicious effects of other warm and relaxing drinks." "Man," says Buffon, "like other animals, might live on vegetables; for flesh, however analogous it may be to flesh, does not afford better nourishment than grain, pulse, or bread. True nourishment is that which contributes to nutrition, growth, subsistence and longevity, and not that inanimate matter which seems to constitute the texture of the herb or flesh, but the organical molecu-

læ, or nutritious particles, contained in the one or the other; as an ox, which feeds on grass, acquires as much flesh as man, or any other carnivorous animal. The only real difference between one kind of aliment and another is this, that an equal quantity of flesh, corn, and grain, contains more organical moleculæ or nutritious particles, than grass, or the leaves, roots, and other parts of vegetables; as has been ascertained from infusions made with these different substances." This profound naturalist maintains, that in corn is contained a very large quantity of the organical moleculæ in a small volume, which he ranks with flesh as equally nutritious; but thinks, that without corn, man cannot take into the stomach a sufficient quantity of the light parts of a plant to be sufficiently nourishing.—*Natural History of the Horse.*

In point of economy, it is an important consideration that four times the quantity of ground is required to support an ox that is necessary to maintain a man; or, in other words, if an acre of ground, or it's vegetative production, be sufficient to support a man during a year, which is near the truth, four are necessary to afford pasture for an ox. "In the same proportion," says an anonymous writer, "as the consumption of animal food increases, in whatever form, the production of the farinaceous food of man must necessarily diminish. The diminution of the production of corn, is farther augmented, by the greater expense, trouble, and risk, connected with agriculture, compared with what appertains to pasturage, as well as by the direct operation of tythes. If the great quantity of vegetable food that must be condensed into the body of an ox, before he become fit for the food of man, be duly considered, it will be ev-



ident, that nothing can be gained in point of economy, by eating even the coarsest pieces of flesh. The lower classes of the Scotch and Irish scarcely ever taste of animal food; but were any preparation of it, even in soup, cheaper than oatmeal, or potatoes (the articles on which they subsist), they would be induced to eat it in preference. The art of cookery is of infinite use to mankind, yet there is perhaps no country where it is less understood than by the lower classes in England. Their whole system seems confined to baking the limb of an animal in an oven, as often as they can afford it, and when they cannot attain this supreme object, they live on bread and cheese. Soups and even the various preparations of milk, the proper nourishment for children, are almost unknown in many counties of England. The poor in Scotland, and on the continent, manage much better. Among the former, oat-meal porridge, and milk constitute their breakfasts and suppers. When they use flesh, they form with it barley-broth, using a variety of vegetables, by boiling the whole a long time. The quantity they make serves their families several days. At other times, they compose a broth of barley, and vegetables, with a lump of butter; all of which they boil for many hours, and this with oat-cakes or other bread, forms their dinner.”—*Cochrane’s Seamen’s Guide*. The perfection of cookery consists in augmenting the nutritious properties of food. It is the *refinements* of cookery only which become mischievous, rendering unwholesome many substances naturally possessed of salubrious qualities; and diminishing that quantity of nourishment which they possess. This *complicated* system of cookery, in which the most dissimilar articles form a compound under



the name of *oglio*, is the bane of health. In fashionable circles, such heterogeneous compounds, in which expensiveness never fails to be one of the ingredients, are *pretendedly* relished.

RULES FOR PRESERVING HEALTH IN EATING AND DRINKING.

BY DR. BAYNARD.

All aged and decrepid persons ought to eat often, and but a little at a time, because weak and wasted bodies are to be restored by little and little; and by moist and liquid food also, rather than by solid, because moist and liquid diet does nourish soonest, and digest easiest.

When struck in years strong drink forbear,
especially of wine beware;
old men of moisture want supplies,
and wine of all sorts heats and dries.

Keep constantly to a plain diet; those enjoy most health, and live longest, that avoid curiosity and variety of meats and drinks, which only serve to entice to gluttony.

Accustom, early in your youth
to lay embargo on your mouth;
and let no rarities invite
to pall and glut the appetite;
but check it always, and give o'er,
with a desire of eating more;
for, where one dies by inanition,
a thousand perish by repletion.

The less food the sick person eats, the sooner he will recover; for it is a true saying, *The more you fill your bodies, the more you hurt them.*



To miss a meal sometimes is good,
 it ventilates and cools the blood ;
 gives nature time to clean her streets
 from filth and crudities of meats ;
 for too much meat the bowels sur,
 and fasting 's nature's scavenger.

All men find by experience, that, in the morning before they have eaten, they are light and pleasantly easy in their bodies ; but after they have indulged their appetites with plenty of food, they find themselves heavy and dull, and often sleepy : which sufficiently shews, that those full meals are prejudicial to the health of the body.

The most unhealthy are found among those who feed high upon the most delicious dainties, and drink nothing but the strongest and most spirituous liquors ; whereas others, who want this delicate fare, are seldom sick, except they have such insatiable appetites as to eat much.

That to sup sparingly is most healthful, may be inferred from the experience of an infinite number of persons who have received the greatest benefit from light suppers. The stomach not being over-burdened, sleep is rendered more pleasant ; from sparing suppers the production of humours which cause defluxions, gouts, rheumatisms, dropsies, giddiness, and corruption in the mouth from the scurvy, is prevented.

Let supper little be and light ;

but none makes always, the best night :

it gives sweet sleep without a dream,

leaves morning's mouth sweet, moist, and clean.

Many indispositions are cured by fasting, or a very spare diet. That men in health may prevent diseases, I advise, that one meal should not be eaten, till the other, which was eaten before, has passed out of the



stomach; which is not done till the appetite of hunger calls for another supply: by this means the food will be converted into good chyle, and from good chyle, which is a milk-like substance, good blood will be produced, and from good blood arises generous spirits, on which depend a healthy constitution. On the contrary, when too great a quantity of food is taken, which the stomach cannot easily digest, the chyle will be raw and corrupt, which will foul the blood, and render the body disordered and unhealthy.

Till hunger pinches, never eat;
and then on plain, not spiced meat:
desist before you've eat your fill;
drink to dilute, but not to swill;
so no ructations you will feel.

Two meals a day is said to be sufficient for all persons after fifty years of age, and all weak people; and the omission of suppers always conduces to the health of the weak and aged. Misers, who eat and drink but little, live long. It was the opinion of an eminent person, formerly physician to St. Bartholomew's hospital, that fasting, rest, and drinking water, would cure most diseases. And there seems much reason in this assertion; for fasting will give time to the stomach to unload itself of the cause of distempers, which begin in that bowel; to which cleansing, the drinking of water plentifully will much contribute. Some years since a neighbour became very feverish, and he was persuaded to go to bed. I paid him a visit, when I found the windows close shut, the curtains of the bed drawn, and the room very hot. It was July. He was burning hot, and complained for want of breath. I threw open the curtains, covered him warm, and opened the



windows. The wind then blew into the room, and he presently told me his shortness of breath had left him. I persuaded him to drink some water, which refreshed him. After I had taken my leave of him he called for more water. While he had the cup in his hand the apothecary came in, who finding him about to drink of water, told him if he did he was a dead man; but instead of forbearing, he drank it up in his presence; on which the apothecary took his leave, saying, he would have nothing more to do with him. However before night, the person arose went abroad, and found his fever had left him. This is one instance among many that might be given, of the benefit of fresh air to a person while warm in bed; for thereby his body was cooled inwardly, and his breathing made more free by the air, which was drawn into his lungs, refreshing and cooling the blood as it passed through them. By keeping the blood cool as well as clean, is to be understood, not only moderation in diet, but to feed mostly on cooling food made of wheat, barley, oat-meal, rice, and ripe apples; as also on milk, which joined to oat-meal, is the chief food of those lusty and strong men, the Highlanders of Scotland, who abound in children. Dr. Cheyne informs us, in his treatise on the Gout, that milk and oat-meal are most strengthening food, and keep the blood in a proper good state; so that therewith and drinking water, as the High-landers do, mankind may subsist better than on beef, pork, venison, and other meats hard to digest. Cheyne gives a striking instance of the efficacy of a cooling milk diet in a doctor of Croyden, who had long been afflicted with the falling-evil. By slow observation, he found the lighter his meals were, the lighter were his fits. At last he cast



off all liquids except water, and found his fits weaker, and the intervals longer. Finding his disease diminish in proportion as it's fuel was withdrawn, he betook himself to vegetable food and water entirely, which put a period to his fits without any relapse. That food, however, became too windy for him, so he took to milk, of which he had a pint for breakfast, a quart for dinner, and a pint at supper, without fish, flesh, bread, or any strong or spirituous liquor, or any drink but water, with which he lived afterwards for fourteen years, without the least interruption of health, strength, or vigour, but died afterwards of a pleurisy. I have often observed that diet alone has a most uncommon effect in curing diseases, particularly that which is temperate and cooling, as milk, the roots and seeds of vegetables, i. e. potatoes, turnips, wheat, rice, barley, oatmeal, and full ripe fruit. In short, temperance or a spare diet, void of dainties, never was injurious to the strongest constitution; and without it, such as are weak and sickly cannot long subsist; for the more such persons eat and drink, the more weak and disordered they will still find themselves to be: if the strong despise temperance, the comfort of weak, sickly, and pining people entirely depends thereon, which custom will soon render easy, and as much pleasure will be had in the denial of intemperate desires as before in what was falsely styled good eating and drinking; for nothing is good which injures health. Custom renders gluttony and drunkenness agreeable: a contrary custom would make them abhorred. Temperance enables us to live most at ease, and enjoy life the longest. It frees age from decrepitude and makes death easy.

So reader, if thou art so wise
to put in practice this advice,



the world shall wonder to behold
 thou look 'st so young and art so old.



Instances are mentioned of persons who have habitually practised excesses in eating and drinking, and yet their lives have been long; but they can only be accounted as exceptions to a general rule; and we may confidently infer that if such persons lived to a great age, notwithstanding their practices of intemperance, they would have lived much longer if they had pursued a regular course of wholesome diet.

FARINA, OR GRAIN.

It is a matter of regret that Britons are so much attached to trade, neglecting the most rational and natural of employments. While the husbandman is raising food for his fellow-creatures, he is laying the foundation of health and longevity to himself and his offspring. No manufacture is equal to the manufacture of grain. It supplies food for man and beast, while the surplus tends to enrich or to procure the conveniencies or elegancies of life. It depends not on fashion, caprice, or the uncertainty of trade. The great consumption of animal food, and the immense number of horses kept in this country are among the causes that Britain is not able to raise grain for the supply of her own inhabitants. Mr. Mackie computes the number of horses in this country to about two millions, and that every horse on an average, consumes the produce of three fertile acres; consequently the produce of six millions of fertile acres is annually consumed by horses. Two hundred and



sixty thousand of these animals are kept for pleasure !

BOILED GRAIN. Simple boiling precludes all adulteration, is an operation less laborious than artificial baking, and a mode of cookery the most wholesome. “ Were wheat used as a part of diet, immediately after being deprived of it’s external husk, either by being passed through a mill, or by the method formerly in universal use in this country, of beating it in a stone mortar with a wooden pestle, it is evident” says an elegant anonymous writer, “ that all the labour of grinding, all the diminution of quantity caused by separating the bran, all the expense of carrying it to the oven, and all the profit belonging to the baker, would be saved ; and, what is of more consequence, all the tricks played during the process of reducing the corn into flour ; for it is in this stage of the process that the heterogeneous, and, too frequently, unwholesome substances are mingled with it, would be avoided. All these advantages any person may obtain, who will eat grain boiled instead of baked.

So strong however, are the prejudices of the vulgar of this country in favour of eating the farinaceous part of their diet, made into the shape of a loaf, that not only every other mode of preparing the farinacea for food has fallen into disuse, but potatoes, rice, barley, &c. are converted into this favourite form.

In the operation of making fine bread, not only the nutritious properties of the gluten are greatly diminished, but full a third part of the original corn is previously taken away in the form of bran. Nature unquestionably intended that man should use the whole of wheat as food. A convincing proof of which is, that although fine flour simply boiled lies heavy on the stomach, whole



wheat, cooked in the same manner, usually termed furmenty, or coarse flower made into dumplings or unfermented cakes, can be eaten by those who have the most delicate stomachs without inconvenience. This difference depends on the bran being mixed with the flour, by means of which the glutenous part is more divided, as well as an account of it's being in a smaller proportion to the whole. In so far as a smaller proportion of gluten is contained in coarse flour, and particularly where that coarseness depends on the mixture of other ingredients besides bran, it is liable to be more completely spoiled by the heat of the oven; such bread, in fact, contains little or no nutriment.

That the nature of this gluten, or eminently nutritious part of flour, is destroyed by a degree of heat much inferior to what bread is exposed to in the oven, may be satisfactorily proved by attending to the common process of making paste. If a table spoonful of fine flour be carefully mixed with half a pint of cold water, and brought to a degree of heat a little under that of boiling water, and kept in the same heat for about ten minutes, being careful that it does not quite boil, it will be converted into a tenaceous adhesive paste; but if suffered to boil briskly for the same length of time, it's adhesive properties will be destroyed; and, on cooling, the flour will separate from the water, and subside. Those who are in the habit of using paste, know that it is tenacious in proportion to the goodness of the flour from which it is prepared; and that to inferior kinds alum must be added, with the same intention that the baker mixes this ingredient with bad flour, to augment it's tenacity, by which the sponge rises the better, not, as is commonly supposed, to



render it more white. A knowledge of this fact, that the gluten of wheat is destroyed by exposure to any degree of heat superior to that of boiling water, is subservient to other important purposes in the economy of grain. It teaches, that flour duly tempered with water, and exposed to a degree of heat not exceeding the boiling point, not only coagulates itself, but will impart it's coagulating property to other species of farinacea, not themselves possessed of it, in some measure answering the purpose that eggs do in puddings, and by imparting a degree of solidity to a mass of heterogeneous materials, will render substances susceptible of the digestive action of the stomach, which would otherwise not be so.

It is on the farinacea that mankind always have, and always must depend for the chief source of their food. Man can live in perfect health on vegetable diet without animal food, but not the contrary. The happiness and prosperity of nations, as well as the health and strength of individuals, appear to be connected by nature with the cultivation of grain. The bodily strength of the ploughman far exceeds that of the sedentary artificer, and the agricultural nation must always eventually overbalance that which subsists by hunting, or by trade. That a smaller quantity of unfermented farinaceous food than of fine bread will enable a man to support hard labour better, is not matter of opinion, but of experiment: what description of men undergo more fatigue than British sailors? and the chief part of their diet consists of unfermented biscuit, made of coarse flour; pease-pudding, boiled oat-meal, and similar provisions. It was an observation of Brindley, the celebrated canal-engineer, that, in various works in which he had been en-



gaged, where, the workmen being paid by the piece, each exerted himself to earn as much as possible, men, from the north of Lancashire and Yorkshire, who adhered to their customary diet of oat-cake and hasty-pudding, sustained more labour, and obtained more money, than such as lived on bread, cheese, bacon, and beer, the general diet of the labourers of the south. And, that those individuals who ate their food cold, were capable of more exertion than those who used it hot. The northern counties are proverbially known to produce the tallest and stoutest men of which England can boast: a strong proof that their habitual diet of unfermented farinacea, must be wholesome and natural.

The greater part of mankind always has subsisted, and at present does subsist, on unfermented grain. The inhabitants of Asia live on unfermented rice; the Chinese are unacquainted with the art of making bread; (at least we are informed by late travellers that they prepare the farinaceous part of their food by boiling it in water or in steam)) the natives of America simply boil their maize; and, as far as we are informed, the art of making fermented bread is unknown throughout the continent of Africa. But to come nearer home, the common diet of our neighbours, the Dutch, who are a very healthy people, is boiled barley; and the hardy and enterprising Scots, it is well known, live on oatmeal simply boiled, and unfermented cakes made of the same kind of grain, or of pease, or barley-meal.

By using such food, besides the advantage of eating genuine and unadulterated grain, with all it's bran, it is evident that the money usually paid to the miller and the baker remains in the pocket of the consumer. If there be any children, what is left by the parents



will afford them an excellent diet, which cannot be said of the drainings of a tea-pot, or the dregs of beer. Nor does the preparation of such dishes require any more fuel than is necessary to boil a tea-kettle. Those made of the whole grain may be advantageously prepared over night and warmed at the time of eating."

—*Practical Economy*, Callow, 1801.

Rice is a general article of diet, and may be made into a variety of dishes. Simple boiling is all that is required to render it palatable. It may be eaten alone or with milk. Grains which make a harsh and unpleasant sort of bread, are often rendered very agreeable by boiling. This is the case with all the leguminous class of plants, as pease, beans, &c. Even oats and barley, are more agreeable, as well as more wholesome, when boiled, than made into bread. Pease and beans contain an equal quantity of sugar with wheat, oats, or barley, and at the same time a greater proportion of oil, consequently are more nourishing. The people of England are little accustomed to the use of boiled grain, though in many countries it is eaten as a luxury. **BOILED BARLEY**, so greatly approved by the Dutch, may be eaten with milk, butter, or mollasses. It is capable of thickening a great quantity of water, and has a far greater degree of nourishment than any other European grain of the same expense. Barley may therefore be considered as the rice of Great Britain. Barley is one of the best ingredients in soup. Perhaps grits or coarse oat-meal, may answer the purpose as well. **OATMEAL** is frequently made into bread, but is more wholesome in hasty pudding, and eaten with milk, because it has a tendency to induce costiveness in some constitutions. That wholesome bread may be



procured at a price inferior to any hitherto suggested, is well ascertained, by mixing the fine flour of INDIAN CORN with that of wheat in equal proportions. No substance used as aliment, has been more fully and satisfactorily proved to be nutritious than this corn, which has of late been much imported from North America, where it forms a large share of the diet of the rich and poor. "The flour of this corn possesses, to most, an agreeable sweet flavour; so that some persons who have accustomed themselves to the bread made of it, find a difficulty in returning to the use of any other; and I have known", says Dr. Lettson, "individuals so fond of it, as to import it on their own accounts." Some persons indeed have raised objections to this grain, which often have arisen from the grinding of the corn, or mismanagement in baking the bread.

The corn should be ground with care, as a part of the interior edge of the grain is composed of a ligneous spongy substance, the middle of which is of a dark brown colour and of a bitter taste; which, if ground into the flour, produces a disagreeable flavour; to avoid which, the mill-stones should be set so wide, as only just to burst the thick or farinaceous part of the grain, which should be passed through a sieve, in order to separate such bitterish substance; the grain should then be ground with the stones set in a manner to render it sufficiently fine; by this precaution the flour is as white as that of the finest wheat, and full as pleasant to the taste; it possesses the peculiar quality of preserving the bread, made from a mixture of it, in a moist state for many days, which, at least, in dry weather, is no inconsiderable advantage.

The English settlers in America, make a food of Indian Corn called *Samp*, by



soaking the grain in water about half an hour, and then beating it in a mortar ; or grinding it in a hand or other mill, till it be reduced to the size of rice, sifting the flour and winnowing the hulls from it. They then boil it gently till it becomes tender ; and with milk or butter and sugar, make a very palatable and wholesome dish. This food was often prescribed by the learned Dr. Wilson to his patients in London. The Indians, who live chiefly on this corn, are remarkably healthy ; and the stone, in particular, is a disease rarely known among them.

BARLEY. Of this grain a rich substance may be composed, by taking one pound of it in a hulled state and steeping it a sufficient time in milk. The milk and barley may then be slightly boiled. Cream, mace, cinnamon, salt, and sugar may be added.

ANOTHER.

Let one pound of hulled barley be boiled in four quarts of water, till soft. Add raisins, currants, butter, rose water, and sugar.

ANOTHER.

Half a pint of hulled, or, as it is called, Scotch barley, boiled slowly in a proper quantity of water, will produce nearly a quart of very nutritious food, which eaten with coarse sugar, treacle, or melted butter and salt, is very palatable. In this process a quantity of water has the appearance of being changed into a solid, and converted into nutriment.

RICE may be prepared and eaten in the same manner. The crispness peculiar to rice cooked as in India, is produced by throwing the grain, as soon as boiled sufficiently soft, into a sieve or cullender, and permitting a stream of cold water to run through it. It may be warmed, when eaten, by setting the

dish containing it within another with hot water.

CUT GROATS, prepared in the same manner, are very wholesome, and afford most substantial food.

WHEAT, deprived of the external husk and afterwards boiled, called in some parts of this country Creeled or CREED WHEAT, is a very nourishing food; a small quantity of which will enable a man to sustain the hardest labour.

The expense of these dishes, allowing threepence for the grain and as much for the seasoning; or where flour or meal is used, two-pence, and one penny for milk, which will produce more food than two people can eat at a time, does not exceed sixpence; which compared with that of a breakfast on tea for two people, Tea 2d. Sugar 2d. Milk $\frac{1}{2}$ d. Bread 4d, at 1s. 6d. the quartern, butter 3d. amounts to elevenpence half-penny, may fairly be considered as double, without any thing remaining.

LEGUMES OR PULSE.

BEAN. The common Bean. (*Vicia Faba.*) The green, unripe seeds of this well known vegetable, are a favourite summer-food in this and other countries. But the meal obtained from the ripe and dried seeds is seldom made use of. Yet, when mixed in a small proportion with wheaten or rye-flour, it yields a sufficiently palatable and not unwholesome bread, and may therefore be occasionally used in this way, in order to save wheat-flour. When bean-meal or flour is used for bread, it is, in some places, steeped

in water, to take off the harsh flavour, and afterwards when mixed with wheat flour, the taste is scarcely to be perceived. Specimens of very good bread have been produced before the Board of Agriculture, made of the following proportions. 1 lb. bean flour, 1 lb. potatoes, and 4 lb. of wheaten flour. The flour or meal, both of beans and pease, by being boiled previous to being mixed with wheaten flour, incorporate more easily with that article, and probably is much wholesomer than otherwise it would be.

KIDNEY-BEAN. (*Phaseolus vulgaris.*) In this country the ripe seeds of this plant are seldom eaten; but when boiled and freed from their skins, they are much esteemed abroad, where they are eaten, cold, as a salad, seasoned with vinegar and pepper. They are very farinaceous and nutritive. The meal mixed with a proper quantity of wheaten flour, may be made into bread.

PEA. The garden pea, (*Pisum sativum.*) when boiled in a fresh or green state, is less flatulent and easier of digestion, than after it has matured. Bread formed of peas alone is solid, heavy, and unwholesome; but three parts of rye flour and one of ground peas, afford a more palatable and nourishing bread than if made of wheat or rye alone.

STEWED PEAS.

This dish is made by taking a pint and a half of peas while green, and putting them into a stew-pan, with butter, parsley, scallions, and a cabbage-lettuce cut. Let them stew with their own juice over the fire, an hour and a half, or till they be sufficiently done, and the sap consumed. Add a little sugar, a very little salt, and the yolks of two eggs beaten with some cream. Thicken the whole over the fire. Some use



neither cream nor eggs, but serve the peas simply in their own sauce, which should be thick.

Some difficulty has frequently been found in boiling peas soft, and the defect has been generally attributed to the peas, but the cause is always in the *kind* of water. The proper water is that which is pure, clear, and without taste, smell, or colour; in which soap will readily dissolve.

VETCH. The common vetch or tare. (*Vicia sativa*.) Much inferior, as food for man, to peas and other pulse; but in times of scarcity, vetch-meal, previously soaked in water (as recommended to be used with bean-meal) may be made into bread, with a large proportion of wheat or rye flour.

Dried PEAS, BEANS, and every kind of grain, if put in warmish water till a little sprouted, and then used, as if green, will be found to possess the same taste and flavour as if really fresh.

BUCK-WHEAT, (*Polygonum fagopyrum*.) is a species of the *Persecaria*, also called French-wheat or Crap, during the last thirty years has excited the attention of able agriculturists, but another variety of this grain was, about a century ago, introduced into Germany, and has lately also been cultivated in Britain, known by the name **SIBERIAN BUCK-WHEAT**. It possesses considerable advantages over the former; because it is not only a fourth part heavier in the grain, but also more palatable, in this respect resembling rice. It thrives in the poorest soil, is not affected by cold, and being much disposed to branch out, requires scarcely one half of the seed necessary for the cultivation of the preceding species. For culinary purposes the grain of the Buck-wheat is used in various forms, and affords a nutritious meal, which



is not apt to turn sour on the stomach. Mixed with barley, it is, in Tuscany, baked into bread, which possesses the property of retaining it's moisture much longer than that of pure wheat; and tho' of a darker colour, it is equally nourishing. In Germany, a very palatable grit, or granulated meal, serving as an ingredient in pottage, puddings, &c. is prepared of buck-wheat; and if the seed be pure, the produce of each bushel is ten pecks. In the electorate of Brandenburg, not only ale and beer are brewed from a mixture of it with malt, but likewise a very excellent spirit of a bluish shade is obtained by distillation; the flavour of which resembles that of French brandy. From this, as well as the former species of Buck-wheat, the Tartars prepare a delicious food, by simply blanching the seeds, without mills or ovens, in a manner very ingenious, and applicable to most other species of grain. They first pour cold water on the seed, and stir it well, in order to bring the light and imperfect grains to the top, which are thrown away with the water. Then the wet corn is put in sacks, where it is suffered to remain from ten to twelve hours: thus, after swelling a little, it is roasted over a slow fire in iron pans, and continually stirred, till the grain becomes tolerably hard, so as to feel tough and elastic between the teeth. In this manner the husks soon crack, and may easily be separated from the kernel, in a wooden mortar, or a bruising machine made of the hollow trunk of a tree. By this process, the grain acquires a yellow transparent appearance, and is much improved in taste. Further particulars respecting it's cultivation may be found in Dr. Willich's "Domestic Encyclopedia." This plant has hitherto been cultivated in this coun-



try rather for the purpose of feeding hogs and poultry with the seeds, and of obtaining fodder and manure from the stalks and leaves, than with a view to procure an aliment for man. Yet the meal ground from the seeds is very wholesome and nutrimental, and is much used in several parts of Europe instead of wheat-flour. It is commonly made into thin cakes. Formerly, it was eaten in Russia, not by the lower classes only, but by the nobility. Boiled and then buttered, this seed was so much valued by the great Czar Peter, that he is said seldom to have supped on any thing else.

FRUIT.

ALMOND. The sweet almonnd. (*Amygdalus communis*.) Eaten in the usual way, with the skins on, and slightly chewed, are digested with difficulty, and sometimes disorder the stomach. But when freed from their skins, or blanched, and reduced to a paste by trituration, with a little loaf sugar or gum arabic, they become sufficiently light and digestible, and afford, bulk for bulk, almost as great a quantity of nourishment as any other vegetable substance. In this state of a paste, they may, with a small admixture of wheat or other flour, be made into cakes, which will satisfy the appetite and support the body more effectually than twice as much wheaten-bread. The almond paste may also be made into puddings, with ground rice or millet; or it may be put into soups, which it serves to thicken and render more nutritious. Lastly, the almond paste may be further employed

for making a liquor that will in a great measure supply the place of milk. This liquor or emulsion, is easily prepared by triturating the paste with boiling water, which should be added to it little by little (that they may mix together very smoothly) and in such quantity as to give the whole the colour and consistence of new milk. The proportion should be three quarters of an ounce, or at most an ounce, of blanched almonds, with two tea spoonfuls of powdered gum arabic, and three or four lumps of sugar, to a quart of water. The sugar is not absolutely necessary. This will be found to be a very pleasant and wholesome morning and evening beverage, and an excellent substitute for tea. If the almond milk should create flatulency, this inconvenience may be easily obviated, by triturating along with the almonds some carraway-seeds, which will give an agreeable aromatic flavour and pungency to the liquor. The kernels of the almond may be preserved either in dry bran, or in sand; but they ought previously to be dried on shelves or boards in an open situation.

APPLES, (*Pyrus malus*.) boiled or coddled, and eaten with milk, make wholesome, and pleasant food. They may be made richer by being sliced and fried in butter. Then eggs, cream, sugar, rose-water, and nutmeg may be beaten, and the whole fried together.

BILBERRY. (*Vaccinium Myrtillus*.) This plant grows abundantly in woods and heaths. The berries, when ripe, are of a dark blue colour. In Scotland they are eaten by the Highlanders, in milk; and commonly used in tarts and jellies. The species *Vitis Idæa*, or Red Wortle-berry, produces a cooling and acid fruit. In Sweden, it is eaten in the form of a jelly. The species of the *Vaccinium*, called *Oxy-*



cooccus, or Cranberry, grows abundantly in the north of England, likewise on Dersingham moor, in Norfolk, and in Scotland and Ireland. These berries are a delicious ingredient in tarts. A considerable traffic is carried on with cranberries, in the northern counties. This fruit may be kept in a fresh state for many years, by immersing it in a bottle filled with spring water and closely stopped.

CHERRY, a species of the *Prunus*, or plum-tree. This fruit is not much valued in culinary preparations; but in a ripe state is said to be an excellent antiscorbutic, and a valuable medicine in putrid fevers and the dysentery; but is not easy of digestion.

CHESNUT. The common chesnut, or sweet Chesnut. (*Fagus castanea*.) This fruit, freed from the husk, well dried and ground, yields a palatable and nutritious meal, which, in the southern parts of Europe, and particularly in the island of Corsica, is made into cakes and loaves.

CUCUMBER. The common Cucumber. (*Cucumis sativus*.) The best mode of preparing this fruit for the table, is stewing it. When so prepared, it is readily digestible, and considerably nutritious. In this way it may be eaten pretty freely. To prevent flatulence, it is proper to season it with a little pepper.

CURRANTS. The fruit of the red and white currants are deservedly much esteemed for the table. **BLACK CURRANTS** are disliked by some on account of their flavour, but are very wholesome. Their juice is frequently boiled down to an extract or syrup with the addition of a small quantity of sugar; in which state it is called *rob*, and gives relief in sore-throats and quinsies.



GOOSEBERRY (*Ribes*). This fruit enters commonly into several compositions in food, but like all other fruit, should never be used till quite ripe. It is the most saccharine production we possess, and may with great advantage be converted into wine, as one pound of the juice expressed from the ripe berries, requires only one ounce of soft sugar, whereas the ripest currants require double that quantity, to induce the vinous fermentation.

Gooseberry-fool may be made without milk, by scalding one pint of gooseberries, and breaking them very small in some of the water; then beat the yolks of two or three eggs, with a spoonful of rose water; stir in a piece of butter to melt; afterwards put in the eggs; then place it on the fire to thicken.

GOURD. The common or bottle Gourd. (*Cucurbita lagenaria*.) When this fruit is about half grown, it may be dressed in the same way as the cucumber, with which, at that period of it's growth, it agrees in all it's properties.

GRAPES, the fruit of the **COMMON VINE**, or *Vitis Vinifera*, is a native of Japan, and the warmer regions of Asia, but has, for centuries, been cultivated, with great success, in Britain. This fruit is universally esteemed.

HAZLE-NUT. (*Corylus Avellana*.) This fruit may be applied to the same purposes as the Almond.

MELON. *Cucumis melo*, or **COMMON**, or **MUSK MELON**, is a native of Asia, from whence it has been introduced into the South of Europe, and also cultivated in Britain, on account of it's delicious fruit. The properties of melons resemble those of cucumbers. They are however preferable to the latter, being more aromatic, and wholesome.



PEACH. The fruit of *Amygdalus Persica*, a well known exotic, is much valued on account of it's delicious taste and flavour. If eaten in a ripe and fresh state, Peaches are wholesome; but if preserved in wine, brandy, or sugar, they lose their good properties.

PEAR. The *Pyrus communis*, or Pear-tree, is a valuable article of cultivation, particularly in Worcester and the adjoining counties. The fruit, besides it's utility for domestic or culinary purposes, affords a mild pleasant liquor called *Perry*; yet is held in less esteem than the apple, both for this and every other purpose.

PINE-APPLE. (*Bromelia ananas*.) This delicious fruit is a native of Mexico and the Brazils, but cultivated very sucessfully, by the opulent, in this country.

PLUM. Of the Common Plum-tree, or *Pyrus domestica*, there are numerous varieties, of which the Apricot is one. In a dried state they are called **PRUNES**, and are eminently useful as a laxative.

RAISINS, which are dried grapes, eaten with bread, and sweet almonds, make an excellent meal.

RASBERRY. (*Rubus idæus*) This fruit, in a natural state, is grateful and cooling. When used, as in sweetmeats, or fermented with sugar, and converted into wine, or vinegar, it's flavour is greatly improved.

STRAWBERRY. (*Fragaria vesca*.) Strawberries are a wholesome delicious fruit; they may be eaten alone, with sugar, or with milk, and very agreeably with wine. An infusion of the leaves, while young and tender, makes excellent tea; but they ought to be dried in the shade.

WALLNUT. (*Juglans regia*.) This fruit is much the same, in it's nutrimental properties as the Hazle-nut.

—♦—♦—♦—
ON APPLES, PEARS, APRICOTS, PEACHES, PLUMS, GOOSEBERRIES, CURRANTS, or any other common well approved fruit, a person of unvitiated appetite, with a slice of bread, may frequently make an excellent breakfast.

THE ART OF PRESERVING FRUITS, by boiling with sugar, is certainly a pernicious invention. Old Tyron cannot imagine whom they were intended to please, unless children and fools, or for the indulgence of gluttons, who are compelled to pay severely enough by indigestions and the loss of their appetite for wholesome food. Thousands of parents by a foolish indulgence of their children, in giving them such costly improper food, are the agents of their premature dissolution. "Tell me," says he, "my good dames! what have you to say in favour of these curiosities? What benefit, what advantage do you receive from them? Are you more sound, healthy or strong than the poor honest country-woman, who has none of them? Are you more free from sudden qualms or settled distempers? Have you better appetites? Have you more pleasure in eating your larks and pheasants, your dainty bits, with rich poignant sauces, and delicious costly wines, than they in a mess of good milk-pottage, or a lusty piece of bread and cheese, and a cup of nut-brown ale of their own brewing? Do you sleep more soundly on your beds of down, doubly fortified with silk or sarsnet, than they on their mattresses of moss or straw, exposed to the pure air which whistles through the decayed casement or broken pane? Are you more free from colds, fortified with flannel shifts, drawers, quilted waistcoats, and petticoats, set on in quantities which make you look like Dutch-women, and would set up a



long-lane broker?" [The present Jan. 1802, exhibits the ladies in dresses very different from those of 1692, in which Mr. Tryon wrote, dresses which shaded only, not cover. The instances have been numerous, however, in which the fair sex have suffered from this contrary extreme.] "Are you, I say, with all this furniture, free from catching cold, any more than the *rosy-complexioned lass* that courts the sweet kisses of the air in her smock sleeves, and trips over the dewy plains in a winter's frosty morning with but one brace of linsey-woolsey coats, not long enough to conceal her well proportioned leg? Or are your children born more lusty, or more free from diseases, or better complexioned, or straighter-limbed, or handsomer shaped, or in any kind more active, sprightly or vigorous than their's? Alas! none of this; the advantage lies on the other side."—*Good Housewife*.

LEAVES AND STALKS.

ARTICHOKE. (*Cynara hortensis*.) This is a well known plant, the flowers, or a part of them, are esteemed a delicious viand. It is little valued by economists, being very unproductive; on this account it is eaten chiefly at the tables of the opulent.

ASPARAGUS affords a delicious article of nourishment. It may be boiled and eaten with bread, butter, and salt. The young buds of hops have been recommended as a substitute for asparagus, being more easily procured, and are both grateful and wholesome.

BEET. The *Beta hortensis*, or common white Beet, is cultivated in gardens for it's leaves, which are frequently used in soups. The *Beta vulgaris*, or red beet, is possessed of mild aperient qualities, and affords but a weak nourishment. It is easy of digestion, and is recommended as a very proper supper for persons of costive habits. It may be eaten with some potatoes; or with parsley, celery, &c.

BORECOLE, is a species of the *Brassica*, and an excellent vegetable for the table. The leaves may be cut without retarding it's growth, and a new crop obtained in a month or six weeks. It's growth is rapid, and so hardy as to withstand the severest frosts.

CABBAGE, (*Brassica*.) was Pompey's favourite dish. The ancients venerated this plant, calling it divine, and swearing *per Brassicum*. It has been highly celebrated by Cato, Pythagoras and Chrysippus the physician.—*De R. R. cap. clvii*. Some object to the large Scotch Cabbage, but when they are well boiled they are very tender, mellow, and pleasant.

In the months of March, April, May, and June, greens and other vegetables are often scarce. Those who have gardens, instead of throwing cabbage stalks to the dunghill, ought to preserve them for spring greens, by putting them in the ground around the borders or other convenient places. They would produce abundance of tender shoots proper for greens in the spring of the year till spinage and summer cabbages be ready.

Take Cabbage, and cut it as for pickling, let it then be half boiled. Drain the water from it in a sieve, and cover it with a cloth till cool. Let it stand in a warm place or in a malt-kiin till dry. It will then, if close covered up, keep good for years. When

wanted for use, it may be boiled, and some salt put to it. It will be found as good as when fresh cut. SPINAGE, PARSLEY, LETTUCE, &c. may be preserved the same way. Great quantities of Sorrel or Green-sauce, preserved in this manner, are stored in ships and eaten as an antidote against the scurvy.

CARDOON. (*Cynara cardunculus*.) This species differs from the common artichoke in growing much taller, in the leaves being more finely cut, thicker set with spines, and in having smaller and rounder heads. The gardeners blanch the stalks, as they do celery. They are eaten raw with oil, pepper, and vinegar; or boiled or stewed, and sometimes laid upon a toast and cheese.

CAULIFLOWER, (*Botrytis*.) a variety of the *Brassica oleracea*, or sea cabbage, is a native of the Isle of Candia, but of late years, has been greatly improved in this country. It is one of the most nourishing of succulent plants, and most easy of digestion.

Perhaps the best method of preparing this culinary vegetable is to let it first be parboiled; then immersed in cold, hard water for some time; and afterwards being boiled only for a few minutes, it will become more firm and crisp than usual.

CELERY. The garden celery. (*Apium graveolens*.) In it's wild state this plant is known by the name *Smallage*. It is commonly taken raw; but is much better stewed, in which state it may be eaten freely, so as to afford considerable nourishment. In this way it is a light and wholesome vegetable.

CHIVE. (*Allium schœnoprasum*.) The leaves of this plant are valuable for mixing with salads in spring.

CHOUX DE MILLAN, or Savoy Cabbage, is a species of the *Brassica* chiefly cultivated for winter use, being preferred after being nipped by the frost.

CRESS or CRESSES, *Sisymbrium*, a genus of plants consisting of a great variety of species. The *R Nasturtium* or common water-cress is universally eaten as an early and spring salad, being an excellent antiscorbutic and stomachic.

The *Lepidium sativum*, or Garden Cress is a native of Germany. This plant is generally sown for spring salad, and eaten young. It will bear cutting several times. It is a wholesome warm stimulating vegetable, and many are so partial to it as to make frequent suppers of it with vinegar, and bread and butter.

JACK BY THE HEDGE. (*Erysimum alliaria.*) This is a very common plant in hedge rows, the leaves of which are eaten by poor country people with their bread, and on account of the relish given, they call it *Sauce-alone*.

LETTUCE (*Lactuca*), ever was, and still continues, the principal foundation of the universal tribe of salads, which is to cool and refresh. "It is," says Mr. Evelyn, "indeed in it's nature more cold and moist than any of the rest, yet less astringent, and so harmless that it may safely be eaten raw in fevers; for it allays heat, bridles choler; extinguishes thirst, excites appetite, kindly nourishes, and above all represses vapours, conciliates sleep, mitigates pain." This salad has been extolled by Galen; was the favourite vegetable of Tacitus; and Augustus, it is said, erected a statue and built an altar in memory of a cure effected by this plant.

PARSLEY, the common, or *Apium Petroselinum*, is a well known essential ingredient in salads.



PURSLANE, the common or *Portulaca oleracea*, is a tender exotic, annually raised in hot beds, or warm borders. It is a favourite article in summer salads, but is too cold and moist for winter use. It produces laxative effects when eaten freely.

SAVORY, or *Satureia*, a genus of plants of which the species *hortensis* and *montana*, are the principal. Their warm aromatic and pungent leaves are much esteemed in salads, and are frequently put into cakes, puddings, &c.

SORREL, the common, or SORREL DOCK, *Rumex Acetosus*, is cultivated as an ingredient in soups and salads; in the latter it is esteemed for it's cooling properties, tending to allay thirst. In Ireland the leaves of this plant are eaten with milk; and in Lapland the juice is used as rennet. Mr. Bryant says, "the leaves of the *Oxalis acetosella*, or WOOD SORREL, afford one of the most grateful acids of any in nature, far preferable to that of the common garden Sorrel, being cooling and serviceable against inflammatory disorders. Beaten with sugar, they make an elegant conserve; and boiled with milk, form a most agreeable whey."

SPINACH, or SPINAGE, the common, *Spinacia oleracea*. This is an excellent laxative, especially when stewed with butter; but as it tends to pass speedily through the bowels undigested, it should neither be commonly used in this way, nor by persons of weak and relaxed habits. It is more wholesome eaten as a salad.

SUCCORY, or ENDIVE, (*Cichorium endivia*.) is an exotic annual, which is reared in our gardens as an ingredient in winter salads.



TURNIP-STALKS, if taken when they begin to run to seed, so far as they will easily break downwards; peeled and tyed in bundles, then boiled like asparagus, and eaten with melted butter, will be found very palatable.

BOILED PLANTS. Early in the spring, nettle-tops, spinage, corn salad, the young buds of cabbage and coleworts, which grow on stalks, being well boiled, and eaten with melted butter, compose an excellent wholesome dish.

In April, May, and June, there are lettuce, spinage, parsley, mint-tops, pennyroyal, borage, endive, succory, white and red beets, besides the red-dock, dandelion, comfrey, and others in the fields, which boiled in plenty of good water, with a brisk fire, make good wholesome food. When herbs begin to boil, the lid of the vessel should be taken off, and when they are well boiled, may be eaten with salt, butter, and bread. If they retain any unsavoury taste the water should be changed a second or a third time.

SALADS, consist of lettuces, endive, cresses, celery, radishes, onions; to these may be added, purslane, corn-salad, chervil, spinach, and other fresh esculent herbs, which are usually seasoned with salt, vinegar, oil, and mustard; to which are sometimes added, boiled eggs, sugar, pepper, and other spices.

If the leaves happen to be frozen, or frost-bitten, during severe winters, they should be immersed in spring water for two or three hours, previously to being used, by which means their taste and colour will be completely recovered.

SALLADS by Tryon.

1. Spinage, parsley, sorrel, lettuce, onions.
2. Lettuce, spinage-tops, pennyroyal, sorrel, and a-



- few onions and parsley. 3. Lettuce, sorrel, pepper-grass, spinage, tops of mint, and onions.
4. Spinage, lettuce, tarragon, and parsley, with a few leaves of balm. 5. Sorrel, tarragon, spinage, lettuce, onions and parsley. 6. Tops of pennyroyal, mint, lettuce, spinage, sorrel and parsley. 7. Lettuce, spinage, sorrel, onions, pennyroyal, balm and sorrel. 8. Sage, lettuce, spinage, sorrel, onions, and parsley. 9. Sage, pennyroyal, mint, balm, a few lettuce, and some sorrel.
10. Lettuce, sorrel, endive, celery, spinage, and onions. 11. Young coleworts and onions.
12. A salad for winter may be composed of colewort plants, sorrel, lettuce, endive, celery, parsley, and old onions. "Herbs in winter!" some will cry out, "they are cold and injurious, who can or will eat them?" and this false doctrine has been handed by tradition from one to another, without either experience or trial. A well managed salad in December or January, if the season prove open and mild, is as cheering, being eaten with good bread, as two or three glasses of wine, and far more pleasant and natural. Each of the above salads is to be seasoned with oil, salt, and vinegar. Those who dislike oil, will find a very excellent substitute in melted butter poured upon the salad.

OF SALLAD-DRESSING,

from Evelyn's "Acetaria."

The various salads being gathered and proportioned, let the Endive have all it's outside leaves stripped off, slicing in the white. In like manner, Celery is also to have the hollow green stem or stalk trimmed and divided, slicing in the blanched part, and



cutting the root into four equal parts. Lettuce, Cresses, Raddish, &c. must be well picked, cleansed, washed and put into the strainer; swung and shaken gently, and, if you please, separately, or all together; because some like not so well the blanched and bitter herbs, if eaten with the rest. Others mingle Endive, Succory, and Rampions, without distinction, and generally eat Celery by itself, as also Sweet Fennel.

From April till September, and during all the hot months, Guinea Pepper, and Horse Raddish may be left out.

Your herbs being parcelled and spread on a napkin before you, they are to be mingled together in an earthen glazed dish. Then for the Oxoleon, take of clear and perfectly good Olive Oil, three parts; of sharpest Vinegar, Lemon, or juice of Orange, one part; and therein let steep some slices of Horse-raddish, with a little salt. Some gently bruise a pod of Guinea pepper, in separate vinegar, straining both the vinegars apart, so as to make use of either, or one alone, or of both, as they like best. Then add as much dry Mustard, as will lie upon a half-crown piece. Beat and mingle all these very well together; but pour not on the oil and vinegar, till immediately before the salad is ready to be eaten; and then with the yolk of two new-laid eggs break and mix them all together with a spoon; and lastly, pour it all upon the herbs, stirring and mingling them; not forgetting the sprinkling of aromatics, and flowers, if you think fit, and garnishing the dish with thin slices of Horse-Raddish, Red-beet, Berberries, &c. The liquids may be made more or less acid, as most agreeable.



SALADS may be agreeably improved and diversified by the leaves of several neglected herbs, as the Water Avens, *Geum rivale*. Brooklime, *Veronica Beccabunga*.

Burdock, *Arctium Lappa*, may be eaten by stripping the tender stems of their rind, before the flowers appear. The upland

Burnet, *Potèrium sanguisorba*, is a choice salad herb in winter and spring.

Lungwort, *Pulmonaria officinalis*, is a good ingredient in salad, especially in early spring.

The flowers of Borage, *Borago officinalis*, imparts an agreeable flavour to lettuce salad.

The young leaves of Ox-Eye, *Crysanthemum Leucanthemum*.

Some prefer bread and butter, or bread and cheese, with salads, instead of oil; and with some habits they agree much better.

SOUP CROUT is much in use in Holland and Germany. It has been found of singular benefit to our sailors on long voyages, being an antidote, as well as a cure, for scorbutic and other putrid complaints, occasioned either by moisture, bad or foul air, so frequently engendered in the houses of the lower class of people, both in town and country. This favourite dish of the Germans is not very palatable to strangers; but the taste is soon formed to it, and is highly relished ever after.

It is produced by stripping the cabbages of their outward leaves; with a pointed knife, cutting out the stalks; a longish box, open at the top, is provided for cutting them into; when cut, which should be done very small, take a tub, the bottom of which is to be covered with a thin layer of salt; then a layer of cut cabbages, four or five inches thick; a handful of salt, thrown in, and a layer of cabbages again. In this manner proceed till the cask be filled, taking care to press down each layer as close as pos-



sible. Some aromatic herbs are frequently scattered with the salt. Juniper berries are also sometimes beaten in a mortar and applied with the salt, in the proportion of three pounds weight to the hogshead. A board, fitted to the cask is to be laid on the top, and heavy weights are to remain upon it. In fourteen or twenty days, a fermentation will commence. When entirely covered with it's own fermented water, it is fit for use. A portion may be then taken out, which wash thrice in pure cold water; drain and squeeze it well; then stew it for three hours, without any water. Some fry onions cut small in butter, and after the Sour Crout is put on the dish, the onions are poured over it. The dish is then served up and eaten with dumplings. If any be left it may be warmed up a second time, with butter, and in this state some prefer it to the former. Turnips may be preserved the same way; as also a species of the Kidney-bean, with very large pods.

TOBACCO. The use of tobacco is in every form pernicious. If smoked or chewed, much of the saliva, so necessary for digestion, is lost, and the organs of taste are injured. Taking snuff is a bad custom, as respiration is obstructed by it, the important sense of smell destroyed, and uncleanness and want of health induced. In Mr. De Bomare's words, "The least evil which you can expect it to produce, is to dry up the brain, emaciate the body, enfeeble the memory, and destroy the delicate sense of smelling." "Merchants frequently lay this herb in bog-houses, that becoming impregnated with the volatile salt of the excrements, it may be rendered brisker, stronger, and more fetid."—*A Treatise on the danger of using this herb by Simon Paulli, physician to the*

King of Denmark.

"A dealer in this article," says a writer in the "Analytical Review," June 1797, "once acknowledged to me that he sprinkled his rolls and leaves frequently with stale urine to keep them moist, and to preserve the flavour! A friend of mine, whose curiosity led him to see tobacco-spinning, observed that the boys who opened out the dry plants, had a vessel of urine by them with which they moistened the leaves, to prepare them for the spinner! Do the tobacco-chewers know this, and yet continue in this most abominable and disgraceful practice? Can any person think of the above *impune*, with a *quid* in his mouth?"

The poisonous nature of the oil of Tobacco has been observed by several, and particularly by Fontana, in his Treatise on Poisons, vol. ii, edit. 1795. He made many experiments on this herb and ranks it with the vegetable poisons. A single drop of the chemical oil of tobacco being put on the tongue of a cat produced violent convulsions, and killed her in the space of a minute. A thread dipped in the same oil, and drawn through a wound made by a needle in an animal, killed it in the space of seven minutes.—*Jones's Medical Errors refuted.*

That tobacco is unfriendly to animal life may be variously proved. A poultice of it laid to the pit of the stomach, proves dreadfully emetic in a short time. An ointment made of butter and snuff, and applied to the sore or broken out head of a child of seven years, has produced spasms in the stomach, violent retchings, and incessant vomitings.

The loss of time in the amusement of smoking is a serious consideration with those who value time. Many people spend three or four hours of the day in this employment.

The great virtues of a pipe taken in the



morning fasting, are extolled by many; "because," say they, "it brings a quantity of cold phlegm from the stomach." Without insisting, that nothing can be taken out of the stomach except by vomiting, it may be observed, that the substance which is thus hawked up, is the mucus and saliva, which are not less requisite in their respective places, than the blood itself. Every medical man knows well, that the saliva which is copiously drained off by the quid and pipe, is the prime and greatest agent which nature employs in digesting food.

No young person, especially of a lean habit, should smoke; (for tho' it may have some beneficial effects to persons of gross, phlegmatic, and corpulent habits, and to such as are liable to catarrhs, during chilly and damp weather, if moderately taken,) it is to them extremely detrimental; besides, by this practice many contract the disgusting habit of parting with their saliva every minute; and have eventually smoked themselves into a consumption.

"A person of my acquaintance," says Mr. Adam Clarke (the author of a Dissertation on Tobacco), "had been an immoderate snuff-taker for upwards of forty years, was frequently afflicted with a sudden suppression of breathing, occasioned by a paralytic state of the muscles, which serve for respiration; these affections grew more and more alarming and seriously threatened her life. The only relief she obtained in these situations, was from taking cold water. At length she left off snuff, the muscles re-acquired their proper tone; and in a short time she was entirely cured of a disorder occasioned solely by her attachment to the snuff-box, and to which she had nearly fallen a martyr."

ROOTS.

ARTICHOKE, Jerusalem (*Helianthus tuberosus*). This plant, which is a native of America, thrives well in our gardens. It is a species of sunflower. The roots consist of knots, tubercles, or bulbs, which in a good soil run to a considerable size, and when baked, roasted, or boiled, become perfectly mealy, like potatoes: they are rather sweeter, but are quite as wholesome and nutritious, and might on all occasions be used in their stead. In favourable situations the number of bulbs which this plant produces is considerable; and the leaves would become fodder for cattle. Mr. Peters, the author of "Winter Riches," 1772, asserts, that from one acre of ground, he obtained between seventy and eighty tons of this root. He is of opinion, that seven acres will yield three hundred and ninety six tons. Another celebrated agriculturist found the produce of this root to be about four hundred and eighty bushels, Winchester measure, per acre, without any dung.

When these roots are given to horses, they should be washed, and ground in an apple mill: the proportion given at each time is eight pounds, with two ounces of salt, and a bite of hay, thrice daily.

The chief recommendations of this root are the certainty of a crop; it's flourishing almost upon any soil; not requiring manure, and being proof against the severest frosts. The culture is the same as that of potatoes.

This root is one of the best that can be made use of in soups.



ARROW-HEAD, common (*Sagittaria sagittifolia*), is one of those neglected plants, which tho' growing wild in many parts of England, especially on the banks of rivers, are not converted to any useful purpose. It is represented in *English Botany*, p. 84.

The root of the Arrow-head is composed of numerous strong fibres, which strike into the mud; the footstalks of the leaves are of a length proportionate to the depth of the water in which they grow; they are thick, fungous, and sometimes three feet high. It's sharp pointed leaves resemble the point of an arrow, and float upon the water. At the lower extremity of the root, there is always, even in it's wild state, a bulb which grows in the solid clay, beneath the muddy stratum.

This esculent root is industriously cultivated in China and America, where it attains to the size of several inches in diameter; while, in this country, of which it is a *native*, we suffer it to undergo spontaneous dissolution. As it constitutes a considerable part of the Chinese diet, no reason can be alledged, why it should not be resorted to in times of scarcity, when a poor cottager, in some parts of the country, might in one day, with his family, collect a sufficient quantity of these nourishing and palatable roots, to serve them a fortnight, as excellent substitutes for bread. With respect to the manner of dressing and preparing such vegetables, we shall give the necessary directions under the article BREAD.

The Arrow-head requires a low, cold, marshy situation, and a clayey soil, where scarcely any other plant would thrive. Here it grows luxuriantly, and produces an oblong, thick, bulbous root, which, from it's mealy nature, may be easily converted into starch, or flour. There

are two methods of propagating this beneficial plant ; either by the wild growing fibres of the root, or by the seed ; and we earnestly recommend it's culture, from a conviction of it's great utility.

BEET. The red Beet. (*Beta vulgaris.*) This root, when well boiled or roasted, affords considerable nourishment. On account of it's sweetness, it requires to be seasoned with a little vinegar, in order to be adapted more agreeably to the palate. It may be eaten with cheese. A little ginger prevents it from lying heavy on the stomach and from being too loosening.

CICHORY. Succory or wild Endive. (*Cichorium Intybus.*) The roots of this plant, gathered before the stems shoot up, and boiled, are wholesome and nourishing.

DANDELION. Pissabed. (*Leontodon Taraxacum.*) The roots of this vegetable, so common in every hedge and field, are deprived of their hot and pungent quality, and of most of their bitterness (indeed of all that is disagreeable) by boiling or stewing. Thus prepared, they are like Cichory, salutary and nutritious, and deserve to be brought to the table as much as any of our garden roots. They are greatly valued abroad ; and we are told, that when a swarm of locusts once destroyed the harvest in the island of Minorca, many of the inhabitants subsisted upon this plant.

LIQUORICE. (*Glycyrrhiza glabra.*) This root, which is cultivated in some parts of England, when dried and reduced to powder, may be made into cakes, with a double or triple quantity of flour. These cakes are very palatable and wholesome.

ONION. (*Allium Ceba.*) This is a well known wholesome and nutritious root, especially when boil-



ed or roasted. *Garlick, Shallots*, and the other sorts of *Allium*, are to be considered rather as seasonings, or medicines, than as food. The Turks are so fond of Onions that they eat them roasted, as we do bread, and hope to be indulged with them in Paradise. This root was also a great favourite with the Egyptians. In Spain they are very mild, and a root weighing two pounds will grow from a single seed.

They are best when boiled, being rendered thereby mild, easy of digestion, and go off without leaving any disagreeable heat on the stomach or in the bowels. A few raw parsley leaves, eaten immediately after this root, will effectually, it is said, overcome the scent communicated to the breath.

The Leek is used as a pot herb in most parts of Britain, especially in Wales and Scotland. It is an excellent ingredient in soups.

The ORCHIS ROOT, if introduced into common use, would furnish a cheap, wholesome, and most nutritious article of diet, and the growth of it prove sufficiently profitable to the farmer. It is assiduously cultivated in the East; and it's root forms a considerable part of the diet of the inhabitants of Turkey, Persia, and Syria. From it is made the alimentary powder called SALEP; which, prepared from foreign roots, is sold at five or six shillings per pound, though it might be furnished by ourselves at the sixth part of that price. The *Orchis mascula* is most valued for this purpose. A dry and not very fertile soil is best adapted to it's growth. The properest time for gathering the roots is when the seed is formed, and the stalk ready to fall; because the new bulb of which the salep is made, is when arrived at it's full maturity, and may be distinguished from the old one, by a white bud rising



from the top of it, which is the germ of the orchis of the succeeding year. This time also is proper for transplanting them. They should be put three inches deep in the earth. The roots, after they are gathered, are to be well washed, and freed from the fine brown skin, which covers them, by means of a small brush, or by dipping them in hot water, and rubbing them with a coarse cloth. After the roots have been thus cleansed they are to be put on a tin plate in a hot oven for ten minutes, till they assume the appearance of horn, then laid for a few days to dry, and afterwards ground to a powder. Each ounce of this powder added to the hot water with which bread is to be kneaded, will increase the bulk and weight of the loaf six ounces; adding to it also the appearance of lightness. There is not any known vegetable substance, which in so small a compass contains so much nutriment. One single spoonful of salep, weighing less than a quarter of an ounce, put into a pint of boiling water, forms the thickest and most nourishing soup that can be taken. It is therefore often packed with portable soup and kept on board ships, to be used for the sick, and in case of failure of provisions. One ounce of salep powder and one ounce of portable soup, prepared in two quarts of boiling water will support the health and strength of a lusty man for a day. Salep has the singular property of concealing the taste of salt water, and is good in milk pottage when the cow is fed on grains, because it very much retards the acetous fermentation. Take a quart of water, boil it a quarter of an hour, then add one quarter of an ounce of salep-powder, and let it boil gently for half an hour longer, stirring it often. This may be drank with bread and



butter in the manner of Coffee, Tea, or Chocolate, and is infinitely preferable. It may be sweetened and seasoned with wine and lemon-juice, or with cinnamon, &c.

Salep-powder answers much the same purpose in puddings that eggs do, or the glutenous water from boiled bran, rendering very little flower necessary.

Salt is not a seasoning for salep-powder; yet it is disagreeably tasteless without sugar or some other seasoning.—*Dr Percival's Essays*, vol. 2.

PARSLEY. (*Apium Petroselinum*.) Parsley roots, when well boiled, afford a light nourishment. The *large-rooted* parsley, (cultivated in the gardens round London, and which was first introduced into this country from Holland, by Mr. Miller, in the year 1727) is a valuable vegetable. The roots of this sort run to the size of an ordinary carrot, and are very sweet and tender. They may be eaten alone, boiled or stewed, or used in soups.

PARSNIP. The garden Parsnip. (*Pastinaca sativa*.) A well-known wholesome and very nutritive root; but disagreeable to many palates on account of its sweetness, which, however, may be easily corrected by seasoning it with vinegar. A small quantity of pepper, or other spice, is further useful, preventing it from proving flatulent to some constitutions, which it otherwise does, sometimes, when eaten freely. They contain a considerable quantity of sugar, and are among the most pleasant and nutritive of roots. They may be kept for ten years, if rendered hard by drying; and by boiling in water their primitive taste and goodness are recovered. The yellow kind is preferred, being less stringy. It is eaten with milk to cure the consumption and scurvy. The tops, when young, make very pleasant greens, and the tender sprouts excellent sallad.



POTATOE. (*Solanum tuberosum*.) The good effects of this root are fully proved by the daily use which whole nations make of them. The faculty of medicine at Paris, says Mr. Parmentier, being consulted by the Comptroller-general on the wholesomeness of Potatoes, which had been charged with causing diseases in some of the provinces, made a report highly favourable, and calculated to dissipate all apprehensions. In the most populous provinces of Germany many millions of men subsist almost entirely on this food. The chief nourishment of the Irish consists of potatoes, who are robust, and strangers to many diseases; their country abounds with aged people, and twins are commonly seen playing about the hut of the peasant.

Potatoes, in their natural state, contain three distinct and essential principles, viz, 1, a dry powder, resembling the starch contained in grain; 2, a light fibrous matter of a gray colour, and of the same nature as that contained in the roots of pot herbs; 3, a mucilaginous juice, which has no peculiar properties, but may be compared to the juice of succulent plants, such as borage and bugloss.

On distilling potatoes in a retort, they give out an immense quantity of water, which towards the end of the process becomes more and more acid; there next passes a light and heavy oil, resembling that generally obtained from the parts of plants containing flour. A pound of these roots leaves scarcely thirty-six grains of earthly residuum which has all the characters of vegetable earth. The boiling of these roots tends to combine these different principles more ultimately, and to form a whole more soluble and of easier digestion. To divide the potatoes afterwards by means of a grater or to set them under the press



would be to no purpose: it would be impossible to express a single drop of water, or to precipitate a particle of starch.

The vilifiers of this inestimable plant, have imputed several diseases to it, deduced from the circumstance of the vessel, in which they have been boiled, being coloured green and leaving a slight acrimony, sufficiently sensible to the throat. But these properties do not belong to any part of the root besides the external red skin. Several other roots present the same phænomena, such as radishes, which lose their colour as they come in contract with boiling water, tinging it with a green hue, and at the same time parting with their well-known pungency; besides this colouring matter, with which the skin of the potatoe furnishes water, is simply extractive, and contains nothing virulent or saline.

How can this green colour be noxious, since roasted potatoes, which retain it, are not found less wholesome than boiled ones? Prepared in the former manner they are more savoury and delicate; an advantage arising from the dissipation of the aqueous fluid and perhaps from the same extractive matter which communicates the green colour to water.

The vegetable kingdom affords no food more wholesome, more easily procured, or less expensive than the potatoe. The eagerness with which children eat it; the preference they give it to many other kinds of food; and persons of all ages and temperaments feeding on it without experiencing the slightest inconvenience; shew that it is well adapted to the constitution of man. Every author who has paid attention to the nature and culture of potatoes regards them as light and nutritious, and bestows the most approving epithets on them.

Another objection

against the wholesomeness of potatoes, is, that, as they belong to the family of Solanum, they must needs possess narcotic properties. Experience has long since shewn how little such botanical analogies are to be depended on. Is it not well known that the family of convolvulus, which is generally acrimonious, pungent, and caustic, and supplies medicine with it's most drastic purgatives, affords in the Batata a mild saccharine aliment, which, to be used for food, needs only to be boiled? Indeed says Dr. Lettsom, a well boiled or roasted mealy potatoe is at once as a little loaf, and forms the cheapest substitute for that of wheat.

The potatoe possesses the valuable property of improving the quality and increasing the quantity of the milk of animals.

There is nothing that would tend more to promote the consumption of potatoes, than to have the proper mode of preparing them as food generally known. In London this is little attended to; whereas in Lancashire and Ireland, the boiling of potatoes is brought to very great perfection. When prepared in the following manner, if the quality of the roots be good, they may be eaten as bread, a practice not unusual in Ireland. The potatoes should be as much as possible of the same size, the large and small ones, boiled separately. They must be washed clean, and, without paring or scraping, put in a pot with cold water, not sufficient to cover them, as they will produce, themselves, before they boil, a considerable quantity of fluid. They do not admit of being put into boiling water like greens. If the potatoes are large it will be necessary, as soon as they begin to boil, to throw in some cold water, and occasionally to repeat it, till the potatoes are boiled to the heart; they

will otherwise crack and burst in pieces on the outside, whilst the inside will be nearly in a crude state. During the operation of boiling, to throw in a little salt occasionally is found a great improvement; and the slower they are cooked the better. When boiled, pour off the water, and evaporate the moisture, by replacing the vessel in which the potatoes were boiled, once more over the fire. This makes them remarkably dry and mealy. They should be eaten as bread.

Nothing but experience can satisfy any one, how superior the potatoe is, thus prepared, if the sort be good and mealy. Some prefer roasting potatoes; but this mode is equal, if not superior. Some have tried boiling potatoes in steam, thinking by that process that they must imbibe less water. But immersion in water causes the discharge of a certain substance which the steam alone is incapable of doing, and by retaining which, the flavour of the root is injured; and they afterwards become dry by being put over the fire a second time without water.—*From a Report of the Board of Agriculture.*

Potatoes being properly boiled and skinned, may be cut into thin slices, and the same sauce which is commonly used for salads of lettuce, poured over them. Some mix anchovies with this sauce. Boiled potatoes cut in slices, fried in butter, and seasoned with salt and pepper is a palatable and wholesome dish.

Roasted potatoes will keep in that state many years, and when grated down will be found perfectly sweet and as fit for making soup as on the day they were roasted.

POTATOES AND CABBAGE. Potatoes, boiled with one third or one fourth part of white cabbage, and one or more onions, and mashed with a very



small quantity of butter, pepper and salt, is an excellent dish, extremely cheap, palatable and nourishing, and very wholesome food for children. This dish may be found at the tables of the opulent on account of it's excellency, and yet it is happily accessible to every poor person. It should never be forgotten when the large drum cabbages are in season.

A potatoe-apple was hung to dry in the month of March. The small seeds were separated by washing in water. Three of those seeds were dried and in the latter end of April sowed in a lightish ground, rather moist, mixed with rotten straw, cut small. After some time the plants were slightly moved, without separating the earth from the roots, and grew till the beginning of November, when they were found to have produced 203 full grown roots.

The RADISH (*Raphanus sativus*.) abounds with an almost insipid watery juice, which, in some, induces flatulency. The outer skin is briskly pungent, and therefore should never be scraped off, as it tends to correct the phlegmatic part. Boiled radishes are scarcely exceeded by Asparagus; but for this purpose they should be drawn rather small and dressed immediately, like the Asparagus. They require one hour's boiling before they become tender.

SALSAFY, or PURPLE GOAT'S-BEARD. (*Tragopogon porrifolium*.) The roots of this plant, which grow wild in our meadows and pastures, and which is also cultivated in many of our kitchen gardens, are, when boiled, wholesome and nourishing. The same may be said of the YELLOW GOAT'S-BEARD, (*Tragopogon pratense*) the roots of which taste like asparagus, and are nearly as nutritious.

SKIRRET. (*Sium Sissarum.*) This plant is much cultivated in our kitchen gardens. In a favourable soil, the roots grow to the length of six inches or more, and become at least as thick as one's finger. They are white and have a sweet taste, similar to that of parsneps. When boiled, stewed, or fried, they are tender and nutritious. They are frequently stewed in milk, and put into soups, which they serve to thicken and flavour.

TURNIP. (*Brassica Rapa.*) A sweet mucilaginous and wholesome root; but by no means so nutritious as the Potatoc, Jerusalem Artichoke, and some other roots.

THE BOILING OF VEGETABLES thoroughly extricates a considerable quantity of air, and prevents them from producing flatulency.

OF REDUCING ROOTS INTO FLOUR, for the purpose of making Bread, &c.] Potatoc meal or pulp, is made by mashing them with a rolling-pin, while they are warm and moist from the boiler.

Besides potatoes, **TURNIPS, CARROTS, PARSNIPS, JERUSALEM ARTICHOKES,** may in cases of neccessity be made into very good bread, by reducing them to a pulp in the same manner as potatoes; after which they may be mixed up with flour of wheat, Indian corn, rye, or other meal, according to the directions for making potatoc-bread, under the article *Breads*. It is certain that next to potatoes, carrots may be reckoned among the most wholesome and nutritive roots. Like potatoes, they are cultivated at little expense, and like them may be laid up in stores, and, with proper management, be kept good throughout the winter. The common way of preserving them, by burying them in sand, is imperfect. The best



method is either to lay them up in beds lined with straw and covered over with earth, as is practised with potatoes; or else to pile them up against a wall, in a store-room or other dry place, in even rows, upon each other. In either case, it will be necessary to cut off the tops of them before they are laid up, lest they should sprout.

ANOTHER METHOD of making flour from these roots, is as follows. Take full grown carrots, wash them well, and cut or scrape off any parts of the outside which may not be thoroughly cleansed in the washing. Then cut them into thin slices, in the same manner as cucumbers are sliced for the table. Put the sliced roots into sieves, and place them in the sun, or before the fire, that all the moisture may drain or evaporate from them. When they are become quite dry and hard, they may be sent to the mill to be ground down to meal. If they should not be made completely hard and dry, by being exposed to the sun or fire, they should be put in an oven, after bread has been drawn out, and remain there for two or three hours. This carrot-meal, mixed with twice as much wheat flour, or one part wheat flour and one part flour of Indian Corn, makes a very cheap, savoury, and nourishing bread. In this manner SUCCORY, or WILD ENDIVE may be sliced, well dried, and ground down, so as to make, with a proper proportion of wheat or rye flour, a wholesome bread.

STARCH OF ROOTS.

After having well washed a quantity of raw potatoes, in order to detatch from them the earthly adhering matter, rasp them with a tin grater set in a wooden vessel and resting over a fine sieve, which may be

emptied, when full, into a larger vessel. The potatoe thus grated raw, affords a liquid paste, which grows darker coloured on being exposed to the air; pour some water on this paste, and stir it about with a stick or your hands, and pour the whole into a fine sieve or bolter, placed over another vessel. The turbid water which passes through, carries the starch along with it, and deposits it at the bottom of the vessel. The reddish water is to be thrown away, and fresh quantities are to be added till it be no longer tinged. When the powder has settled to the bottom of the vessel, after being well washed, the water should be gently poured off, and the powder taken out, divided into parcels, and spread upon boards exposed to the sun, in order to dry gradually. As it dries, the dirty gray colour will change to a shining white.

What remains upon the sieve may serve, like bran, for feeding cattle or poultry

In like manner

Starch may be made from the roots of Skirret.

Starch is contained, says Mr. Parmentier, not only in roots, bark, stalks, and seeds of vegetables, but in fruits likewise. Most of the following seeds and roots have never been thought to contain any alimentary principle, because it was not known that they contained starch; that starch was the essential part of farinaceous substances; and that it may be separated from the other parts, and reduced to the form of bread; they have always been ranked among poisonous substances, in which medicine has sought specifics, and the arts resources, which have not always been confirmed by observation and experiment.

Take any of the following roots, when ripe, strip them of their skin, divide them by a grater, pour water on the grated mass, which, as it passes through a close sieve or,



searce, will carry along with it a matter which will deposit itself gradually at the bottom of the wooden or earthen vessel set to receive it: after some time, pour off the liquor, and wash the deposited matter: repeatedly with fresh water, till it becomes perfectly insipid; then expose it to the most gentle heat; as it becomes dry, it turns white, and presents a friable matter, without colour, taste, or smell, exhibiting all the characters that distinguish starch.

The plants intended for this purpose should be gathered in autumn, be chosen fresh and succulent, cleared from their hairy filaments and coloured coats; they should also be washed till the water appears quite transparent and colourless. As all the bitterness of the horse chesnut, the asperity of the acorn, the causticity of the arum and ranunculuses, the burning acrimony of the bryony, &c. remain in the water employed to separate and wash the starch, it is proper to use wooden instruments to stir the mixture, as the hands might be injured. The Starch separated from the following seeds and roots, when well washed and dried, is perfectly indential: but it is not sufficient to separate it from the substance in which it is contained; it is also requisite to give directions how to convert it into food. It may be introduced, either alone or mixed with the pulp of potatoes, into the dough of various grains, to make an addition to the quantity of bread. Bread may be made without flour of any kind by this process; but if the potatoe should also fail, the pulpous fruits of the cucurbitaceous family, such as the pompkin, which are sometimes added to wheaten dough in various proportions, may be substituted: lastly, should every other resource, in times of scarcity, fail, the



starch representing flour, would still serve for food; it would be sufficient to dilute it in some vehicle, in order to obtain a very nutritious broth or jelly.

I have used, says Mr. Parmentier, the several starches extracted from the following plants, without distinction, nor was it possible to tell from which it had been procured: when there is a slight difference perceptible in the taste, smell, or colour, it should be attributed to the number of washings rather than to any essential difference of quality.

The Acorn,

The Horse Chesnut.

The roots only of the following vegetables afford starch in considerable quantity.

Common Burdock,	<i>Arctium Lappa.</i>
Deadly Nightshade,	<i>Atropa Belladonna.</i>
Bistort Snakeweed,	<i>Polygonum Bistorta.</i>
White Bryony,	<i>Bryonia alba.</i>
Meadow Saffron,	<i>Colchicum autumnale.</i>
Meadow-Sweet,	<i>Spiraea filipendula.</i>
Masterwort,	<i>Imperatoria Ostruthium.</i>
Black Henbane,	<i>Hyoscyamus niger.</i>
Pimpernel-leaved Dropwort,	<i>Eranthis Pimpinelloides.</i>
Obtuse leaved Dock,	<i>Rumex obtusifolius.</i>
Sharp-leaved Dock,	<i>Rumex acutus.</i>
Water Dock,	<i>Rumex</i> { <i>Aquaticus.</i> <i>Brittanica.</i>
Wake Robin,	<i>Arium maculatum.</i>
Bulbous Crowfoot,	<i>Ranunculus bulbosus.</i>
Knotted Figwort,	<i>Scrophularia nodosa.</i>
Dwarf Elder,	<i>Sambucus ebulus.</i>
Common Elder,	<i>Sambucus nigra.</i>
Common Flag,	<i>Iris pseudacorus.</i>
Stinking Flag,	<i>Iris fœtidissima.</i>



MISCELLANEOUS VEGETABLE SUBSTANCES.

GUM-ARABIC. This valuable gum, which is largely imported into this country, exudes from the trunk and branches of a tree of the Acacia tribe, which grows naturally in Arabia, and is called by naturalists, *Mimosa nilotica*. In nutrimental qualities it agrees with Salep, made from the Orchis root. It is however more mucilaginous, and, weight for weight, even more nutritive than the dried Orchis root. There are daily instances, says Dr. Lind, of persons being supported for many months by gum arabic alone. Mr. Hasselquist, in his voyage to the Levant, relates an instance of the extraordinary nutritive virtues of this gum, which happened to the Abyssinian caravan, in 1740, whose provisions were consumed, when they had still two months to travel. "They were then obliged to search for something among their merchandise, wherewith they might support nature; and found nothing more proper than gum arabic, of which they had carried a considerable quantity along with them. This served to support above one thousand persons for two months; and the caravan at last arrived at Cairo without any great loss of people either by hunger or diseases." Whole negro towns have subsisted on this gum, during a scarcity of other provisions, occasioned by failures of their crops of millet and rice. And the Arabs, who twice a year collect this gum in the inland forests on the north-side of the river Niger, have no other provisions to live upon for some months. It may be used in vari-



ous ways, dissolved in water, or in milk. It may also be employed with great advantage for mixing oily liquids with water. Such mixtures are exceedingly palatable and nourishing. Cherry-tree Gum is nutritive, but in a less degree than Gum-Arabic.

TAPIOCA. This is a mucilaginous substance obtained from the roots of a species of *Jatropha*, or Cassava, and is imported into this country from the West Indies and South America. It is highly nutritious, and requires no other preparation than to be moistened with hot water, or boiled therein. A little sugar and spice, or wine, are palatable and wholesome additions to it. By boiling it in milk, a thick pottage or hasty pudding is obtained. This is very strengthening, but rather too heavy for delicate stomachs. Tapioca may be made into puddings in the same manner as rice.

SAGO. This farinaceous substance is prepared from the pith of a palm-tree which grows in the East Indies, and to which botanists have affixed the name of *Cycas circinalis*. An inferior sort, from a different tree comes from the West-Indies. Indeed the pith of most of the palms is of a similar mucilaginous and mealy nature. Sago is prepared for the table in the same manner as Tapioca, with which it coincides in every respect.

OIL. Sweet Oil, or Salad Oil. This is obtained by pressure, from the ripe fruit of the olive tree. (*Oleo europæa*.) In Italy, and the more southern parts of Europe, it, in a great measure, supplies the place of butter. By triturating it with a sufficient quantity of Gum-arabic (previously made into a thick jelly or mucillage with warm water) it may be



made to incorporate with water, so as to give a milky liquor similar to that already mentioned under the article ALMONDS. The proportion should be half an ounce of oil, with one ounce of the jelly or mucilage of gum-arabic, to a quart of water. A little sugar and aromatic seeds, such as carraway, will render this liquor more palatable, and prevent any nausea. This, like the almond-emulsion, might supply the place of milk, and supercede the use of tea.

Of the foregoing substances it should be remarked that tho' Gum-Arabic, Tapioca, Sago, and Sweet-Oil, be sold at high prices, in estimating their expense, we should attend, not so much to their bulk, as to their nutritive qualities; which, in some of them, is eight or tenfold greater than that of flour or other meal.

OF PRESERVING VEGETABLES.

A METHOD OF KEEPING VEGETABLES of every Description in a sabid State, for many years, excepting Cucumbers and Radishes.] In the year 1772, Mr. Eisen, a Livonian clergyman, published in the German language, a method of preserving vegetables in their fresh state. The substance of this ingenious invention is given by Dr. Willich, in the following words, "After numberless experiments made with a view to ascertain the relative moisture contained in different plants, the excellent Mr. Eisen has clearly convinced the world, by actual proofs laid before Frederick the Great of Prussia, that "vegetables may be preserved in their natural state, so as to retain their juices, their colour, taste, and alimentary



properties, for a series of years, by a proper method of drying and packing them. This method simply consists in drying them on a plastered floor, or an oven, moderately heated by a fire made below the structure; so as to avoid singeing or burning the leaves, stalks, &c.; the whole process being conducted in the manner about to be described, and requiring no farther care in regulating the degrees of heat, than is necessary in baking thin biscuits; provided the former be exposed on their surface to the open air, for dissipating the moisture, while the latter are confined in an oven. In order to succeed completely in this useful business, the herbs and roots, as well as every species of fruit to be preserved, ought first to be cleaned, either by wiping, washing, and otherwise cleansing it in a manner similar to that practised for culinary purposes. The water should be completely drained, by placing the different articles on sieves or frames on which canvas is expanded, or perforated boards, or similar contrivances. After repeatedly turning the leaves, stalks, or fruits, so that each side may become dry, they must be spread over a floor or oven, constructed on the principle before mentioned, till all their moisture be thoroughly evaporated; for, if the least humidity remain within the substance of such vegetables, they will become mouldy and corrupted. The best criterion for ascertaining the due degree of exsiccation, is that of the stalk breaking readily, and the leaves being easily reduced to powder between the fingers. In this shrivelled state, however, they could neither be packed nor conveniently transported: hence, it will be proper to remove them previously to a cellar, or other damp place, till they have become so pliable by

absorption of moisture, as to be compressed without crumbling to pieces. This degree of humidity, is, according to experience, not detrimental to the preservation of the plants, and in it's effects very different from that retained in their interior parts. Next, the vegetables thus prepared, ought to be packed either in strong paper, formed in the manner adopted with tobacco-leaves, or in wooden boxes which have been completely dried; as otherwise they will acquire the flavour peculiar to the wood. If the directions here given, be strictly followed, vegetables may not only be preserved for a long time, without losing any of their essential properties, but they may also be reduced to the 16th, or 20th, or even to the 24th part of their natural bulk. Eight tons, or 32,000 pounds of fresh herbs and roots, may be thus concentrated into the compass of 16 cwt. or the twentieth part of their bulk, so that a single horse might remove with ease what otherwise would have required the united efforts of twenty. When such provisions are to be dressed, it will be necessary either to infuse them for a short time in hot water, before they be exposed to the fire; or, to steep them, particularly leguminous fruits, in cold water, so that they may swell to nearly their natural size; after which they may be treated in every respect like other culinary substances."—*Domestic Encyclopædia.*

On a small scale, Cherries, Plums, &c. may be dried, by placing them on hurdles, made for the purpose, and put into an oven after the bread is drawn out. The fruit should be sound and ripe, with the stalks on, and not laid upon each other in drying. Let them remain in the oven while there is any heat, and if not sufficiently dry, put them in again at the



first opportunity. When quite cool, let them be tied in bunches and kept in a dry place. The larger fruits, as peaches, should be split in halves, the stone taken out, and when half dry, flattened on a clean board, to make them dry equally.

Pears would be better if peeled, and the stalks left on. The kernels of the peach, apricot and plumb; are equal to the bitter almond in puddings.

A simple but effectual MODE OF PRESERVING POTATOES, without Fire, sweet and good, for a great Length of Time.

Take, for instance, on a small scale, $3\frac{1}{2}$ lb. of potatoes, and having peeled and rasped, or ground, or beaten them in a wooden mortar, they then are to be put into a coarse cloth, between two clean boards in a cheese, or linen press, or any other strong pressure which can be increased by degrees, till the pulp be reduced to a dry cake, hardly so thick as a very thin cheese. The cake may be placed on a shelf, as oil cakes are, to dry. To the juice, expressed from the potatoes, which will be about a quart, if the same quantity of water be added, and suffered to stand about an hour, grains of very white starch, or flour, will be deposited, proper for making fine pastry. The juice may also be made into a very wholesome and agreeable wine. A cake prepared in the preceding manner in the year 1797, was produced, by Langford Millington, esq. in January 1800, at a meeting of the "Society for bettering the Condition of the Poor." In size, it occupied a sixth of the compass of the potatoes. In weight, it had lost about two thirds by the process, but on being drest, either by steam, or otherwise, such cakes were found to



produce very nearly the same weight and quantity of food, as three pounds, and a half of potatoes, properly dressed for table would do. Some potatoes, which were quite frozen, were prepared in this way. The cake continued afterwards perfectly sweet, while some that were left, and not pressed, rotted and spoiled in a few days.

ANOTHER. Take five pounds of potatoes, and without peeling them, let them be well cleaned and pounded in a mortar. Then put them into a small wine press, and squeeze them into a thin cake; completing the process as before. The cake produced in this way appears to be sweet and wholesome; but it has not that *clean white*, which the other cakes have; nor has it been ascertained whether it will keep as well as that made of peeled potatoes. Tho' the peeling of the cake be not absolutely necessary, yet it greatly improves the cake; and the clearing them from all discoloured and frost bitten specks appears to be necessary. On a large scale, grinding them would probably be an easier operation, unless the instrument applied in the West Indies for rasping Cassada bread should be made use of, which is cheap, simple, and likely to answer the purpose. It is probable that the cakes might be made at once, by merely pressing the potatoes, without any previous preparation, by a very powerful machine. A common cylinder press might be used; or a cheese press, with a lever added to increase it's power. The most material thing is to ascertain fully the best mode of preparation and it's effect in preserving the root. Processes for abridging labour are so speedily invented and completed in England, that there can be little apprehension but the mere mechanical process will very

soon be made perfect, and adapted to general use.

On the invention itself, it will not be too much to say, that if it's benefit were confined to supplying the Navy of Great Britain, in every station of the globe, with abundance of this wholesome and nutritive vegetable, it would be an object of no small moment; but when it is considered that it may be the means of saving in an abundant season, for a time of scarcity, and of preserving for years, an article of food so important, and subject to decay; that the potatoe so prepared may be packed in one-sixth of it's former space, and supply not only our navy, but our manufactures, and our soldiers at home and abroad; and that it may afford acceptable employment, within doors, for the poor, during the severest part of the winter, it will appear to be deserving of great attention.

BREADS.

Of all the aliments Bread holds the principal place. It's use is proper at all seasons, and it is adapted to all constitutions, and may therefore be justly denominated an universal aliment. The texture of the parts of bread is admirably adapted to the nature of the nutritious juices; for it is mixed with mild, oily, and mucilaginous particles, and also with a subtle acid salt, which is very grateful to the stomach, and quickens the dissolving power of the juices. But as all bread is not made of one and the same grain, so one kind of bread is preferable to another, with regard to it's healthful qualities. The best and most nourishing bread is made of rye-meal, not very white;



but mixed with the smaller and finer parts of the bran. For blackish coarse bread yields by distillation more oil, which has a more agreeable flavour, and more effectually recruits strength, than that drawn from fine bread.—*Dr Hoffman on Aliments.*

Bread, or something resembling it, makes a part of the diet of all nations. Hence it is emphatically denominated *the staff of life*. It may however prove hurtful when taken to excess. The French consume vast quantities of bread, but use also a copious proportion of soups and fruits.

The great art of preparing food, is to blend the nutritive part of aliment with a sufficient quantity of light substance.

Bread is an expensive mode of using grain, and is burdened with the miller and baker's additional charges. The former often grinds extraneous matter with the wheat, and the latter as frequently bakes it with the addition of lime, chalk, allum, and other pernicious substances.

The most wholesome bread is made by grinding down the whole grain, and only separating the coarser bran; or what is called *meslin* bread, consisting of wheat and rye ground together. All the different kinds of grain are occasionally made into bread, some giving the preference to one and some to another, according to custom or prejudice. The people of south Britain generally prefer bread made of the finest wheat flour, while those of the northern counties eat a mixture of flour and oatmeal or rye-meal, and many give the preference to bread made of oatmeal alone. The common people of Scotland also eat a mixed bread, but more frequently bread of oatmeal only. In Germany the common bread is made of rye, and the American labourer thinks no bread so strengthening as that which is made



of Indian Corn; nor can it be doubted but the laplander thinks his bread made of the bones of fishes is the best of any.

Bread made of different kinds of grain is more wholesome than if made of one only, as their qualities serve to correct each other. For example; wheat flour, especially the finer kind, being of a starchy nature, is apt to occasion constipation. Bread made of rye-meal, on the other hand, proves often too *slippery* for the bowels. For the active and laborious, a mixture of rye with the stronger grains, as pease, beans, barley, oats, Indian corn, and the like, may be recommended. They should be blended in different proportions according to inclination or the preference of taste.

When potatoes, or boiled grain, are used, bread ceases to be a necessary article of diet, a considerable part of bread alone is improperly consumed by children. When the child desires to eat, a piece of bread is ready, and is put into it's hand to save the trouble of making a more proper food.—*Buchan on Diet.*

The generality of English people, entertain a notion that no vegetable substance, as an article of food, is so proper as wheat-flour, fermented and baked. This is a great mistake; for, we repeat, that the natives of the East, who live almost entirely upon rice, enjoy as much health and strength as we do; the German peasants, who taste no other bread than such as is made of rye, are hardy and hale; the inhabitants of the northern parts of Sweden, and of some parts of the Alps, whose bread is made of barley-meal, are remarkable for enduring hardships and toil, and for braving the inclemencies of their native clime. In like manner, the Scotch Highlander, whose chief aliment is oat cake, is distinguished by a stout and athletic



ic frame; and lastly, the hard-working people of the North of Ireland, whose food is potatoes, surpass us in strength as well as in size. In the Northern parts of North America, the common household bread is composed of one part of Indian meal and one part of rye-meal. When it is mixed with wheat flour, it will greatly improve the quality of the bread, if the coarser part of the bran has been separated, previously mixed with water, and boiled for two or three hours. This boiling will take away a certain disagreeable raw taste, which simple baking does not so effectually.

OF GRINDING WHEAT.

The great power of machinery at present in use, together with the late improvements in cleaning the wheat before it be ground to flour, enable the millers to grind the coarse flour so fine, that the quality cannot easily be discovered on inspection, either by the fineness of the flour, or by the colour; and hence they have opportunities of robbing the flour of a certain proportion of the soojah or roulan. This mode of grinding is very prejudicial, as, from the severe pressure of the stones, the flour is rendered dead; a term and quality well understood by bakers; which always will be the case when the stones are set to finish the grinding at once. The perfection of making flour consists in grinding, at different times, and not at once; that is to say, the wheat should be ground, the first time, so as to yield half it's weight in flour, part of the coarse bran extracted, and the remainder returned to the hopper to be reground; all the sharps to be constantly returned to be reground into flour. Flour thus ground is far better than that ground at once.—*Cochrane's Seaman's Guide.*



MEANS OF DISCOVERING THE REAL FINENESS AND QUALITY OF FLOUR.

It has been a disideratum to ascertain the real fineness and quality of flour. The following experiment, if carefully made, will effectually check all fraud ; and is therefore of the utmost consequence as a guard against imposition. Take a pound of flour, properly ground, of a standard quality of wheat, and from which it is certain nothing has been extracted. Moisten it with water, and make it into paste, then knead it in pure water ; which repeat at different times, until the farinaceous parts are washed away, and nothing but a substance like an elastic gum, remains. Dry this and weigh it ; which weight establish as the standard fineness of flour, bolted through a cloth of certain fineness to a pound weight. When the quality of any flour is to be tried, proceed in that method, to see whether the proportion of the gummy part be more or less than the standard. If less, it has been robbed of so much of the roulan ; and the quantity may be ascertained to the utmost nicety. It will also discover, whether the flour has been adulterated by other grains, as wheat is the only grain which contains that glutinous substance to any extent.

—*Cochrane's Seaman's Guide.*

ADULTERATION OF BREAD

is owing, it has been asserted, to the legal distinctions in the quality of it, and to our making colour the standard of goodness. Dr. Darwin observes, that where much allum is mixed with the bread, it may easily be distinguished by the eye : when two loaves so adulterated, have stuck together



in the oven, they break from each other, with a much smoother surface, where they had adhered, than those loaves do which contain no allum.

MR. DOSSIE'S GENERAL DIRECTIONS FOR MAKING BREAD.

The most simple and approved method of making bread for household purposes, at the least expense, is as follows:

- Take Flour, 6 Pounds,
- Water, $2\frac{1}{2}$ pints, in weight 2 pounds, 8 ounces,
- Yeast, 4 ounces, or 8 spoonfuls,
- Salt, 2 ounces.

Let the water be made warm, but not boiling hot, and then let a part of it be put into a vessel with the yeast; which should be well mixed with it by beating them together with a whisk. Let the salt be put into the other part of the water and stirred in till it be dissolved. Afterwards, add both the quantities of fluid gradually to the flour, and knead the mass well till the whole be perfectly mixed. Let the dough, thus made, stand for about four or five hours, or till the exact moment of it's being fully risen, and then shaped into loaves, which must be placed immediately into the oven and baked.

Salt, when used in making bread, gives a dry, hard quality to the loaf, it is a *seasoning*, which much destroys it's agreeable sweetness and moisture.

What is called laying bread in sponge, i. e. adding the necessary quantity of yeast and water to the flour an hour *before* you knead the whole mass, performs the office of fermentation more effectually; and if the effervescent state of the barm be doubtful this mode very much assists it.

-4-4-3-

In making bread, it has been ascertained, that if five pounds of the bran be boiled in as much water as will knead (allowing for waste) 56 lb. of flour and afterwards drained from the bran, and the flour kneaded with the water drained therefrom, to the usual consistence, adding thereto the common quantity of yeast and salt, the loaves will weigh before baking 93 lb. 13 oz. after being baked 2 hours, and suffered to cool, they will weigh 83 lb. 8 oz. The same quantity of flour made at the same time, in the common way, produced 69 lb. 8 oz. The bran is as good for fowls, &c. afterwards as ever.

FRENCH-BREAD

is prepared in the following manner. Take half a bushel of the best wheaten flour, and dilute one pint of good yeast with three quarts of warm water; let the whole be properly mixed, and cover it with flannel till the sponge be formed. After the dough has sufficiently risen, six quarts of lukewarm skimmed milk, and one pound of salt, are to be worked in with the fingers, till the sponge be weak and ropy; when it must again be covered, and kept warm. The oven being now made very hot, and the paste moulded into bricks or rolls, they are put in expeditiously; the former requiring one hour and a half, but the later only half an hour. As soon as the bread is sufficiently baked, it must be taken out. When the milk is added to the sponge, two ounces of butter is sometimes incorporated; but this addition being immaterial, it may be omitted.

RICE-BREAD.

To make rice bread, whole rice boiled answers the

purpose nearly as well as the flour of it. Two pounds of rice, when boiled, weighs four pounds; it may then be kneaded with wheat flour, or the meal of oats, barley, rye, or different proportions of them; with the usual additions in making bread, affords excellent loaves; this quantity of rice requires about a pint and a half of meal or flour. In London, natives of different countries are attached to different kinds of grain; by this familiar mode of making bread every palate might be gratified. Rice, in every composition is wholesome, and in the composition of bread is very productive. The rice is to be previously boiled in three times it's weight of water, which is put to it cold. Thus, ten pounds and a half of flour, (the quantity used in three quartern loaves) when made into dough, with one pound and a half of whole rice, will produce six loaves instead of four.

BREAD OF RICE AND WHEATEN-FLOUR.

Where the wheaten flour is very good, and great attention paid to the mixture, one pound of boiled rice and three pounds of flour, will produce seven pounds of bread; but, in general, one-fifth of rice is the best proportion. The best mode of preparing it is as follows. Set the sponge with six pounds of flour, and one-third of a pint of well settled yeast, mixed with a pint of warm water; put it in a warm situation to ferment; then wash two pounds of rice, and set it to boil in two gallons of water; when it boils and thickens, pour in more water to prevent the rice from sticking together, and when it is perfectly tender, and fully saturated with the water, without running together, cool it on a coarse sieve or cullender. The rice will require about an



hour and a half for the boiling; and when it is cooled to the temperature of new milk, which will be in about an hour and a half more, the sponge will be risen so as to be formed into dough with it. Then knead the whole well, and work in, gradually, a handful of salt, and four pounds of flour. Leave the dough to rise for two hours; it will then require about another pound of flour to make it into four stiff loaves; put them immediately into the oven, and bake them nearly three hours. The bread will keep moist eight or ten days, and ought not to be eaten till two or three days old.

ANOTHER.

Boil a quarter of a pound of rice till it be quite soft; then put it on the back part of a sieve to drain; and when it is cold, mix with it three quarters of a pound of flour, a tea-cupful of yeast, a tea-cupful of milk, and a small table spoonful of salt. Let it stand for three hours: then knead it up; and roll it in about a handful of flour, so as to make the outside dry enough to fit it for the oven. About an hour and a quarter will bake it; and it will produce one pound and fourteen ounces of very good white bread. It should not be eaten till it be two days old.

The Carolina rice bakes well without any preparation; but the East India rice, though adapted for boiling or stewing, does not in general answer for baking, without being previously prepared, by soaking a day or two, in cold water.

ANOTHER.

An excellent way of making bread of rice is, by boiling three-fourths of wheaten flour and one fourth



of rice separately. The rice should be well boiled, the water squeezed out (which may afterwards be used as starch for linen, there being no better), and the mass should then be mixed with the flour. It is made in the same manner as common bread, and is very nutritive. One pound and a half of flour mixed with half a pound of rice, will produce a loaf weighing from three pounds to three pounds and two ounces, which is greater than that obtained by baking bread of wheat-flour only. Rice has also been tried in the same proportion with barley, and makes good bread for labouring people; but the gain in baking is by no means equal to that obtained by mixing it with wheat.

Of seventy mixtures exhibited in bread before the Board of Agriculture on the 10th of November, 1795, with a design to ascertain the best substitutes for wheat, none made bread equally good with rice: not ground, but boiled quite soft, and then mixed with wheat-flour. One third rice, and two thirds wheat, made good bread; but one-fourth rice, makes a bread superior to any that can be eaten, better even than all of wheat. As the gain, therefore, in baking is more than wheat alone, and as rice is to be had from the East Indies in any quantity, and may be afforded here, it is said, so low as one penny three farthings, or at the utmost, two-pence per pound, it appears to be an object of very great importance, more especially, as there can be no doubt of it's nutritive quality.

ANOTHER BREAD FROM RICE ALONE

may be made by grinding the rice in a mill; afterwards, a portion of the flour is to be put into the



kneading trough; a little of the rice should be previously boiled in water, till a thick and glutinous decoction be obtained. When the liquor has become of a lukewarm state, it may be poured upon the rice flour, and both well kneaded, with a proper quantity of leaven, or yeast. In order to impart a greater consistence to the whole, a small portion of wheat-flour may be added. The dough is then to be covered with warm cloths to assist it's rising. During this time the oven may be heated. When sufficiently light, the dough should be poured into a tin pan, furnished with a long handle, and covered with a sheet of paper. The pan is then to be carried to the part of the oven where it is intended to lie for baking, and expertly inverted. The heat will prevent the paste from spreading and losing it's form. This bread is said to acquire a fine yellow colour in the oven. It has been found very wholesome, and it's taste agreeable; but, on becoming stale, loses these good qualities.—*Journal des Sciences.*

RYE-BREAD.

In several parts of the kingdom, a mixture of rye and wheat is reckoned an excellent kind of bread. In the West Riding of Yorkshire, at certain times of the year, large quantities of bread made entirely of rye is brought to the markets. As rye is well known to be a wholesome and nutritious grain, it's consumption cannot be too strongly recommended. The following method of making a new kind of household bread, on long trial, has been found to answer extremely well. Supposing half a bushel of rye weigh 30 lb; add to it one fourth part or $7\frac{1}{2}$ lb of rice. This should be all ground together, and the broad



bran only taken out, which seldom exceeds two and a half pounds. Fourteen pounds of this flour, when baked into bread, and well soaked in the oven, will produce twenty-two pounds weight of bread, which is a surplus of three pounds and a half, in fourteen pounds, over and above what is usually produced in the common process of converting wheat flour into household bread. The astringent quality of the rice, thus mixed with rye, corrects the laxative quality of the latter, and makes it equally strong and nourishing with the same weight of common wheaten bread.—*Exper. tried by the Board of Agriculture.*

The celebrated Hoffman, speaking of a malignant epidemy which prevailed in Germany, states, that the inhabitants of Westphalia were entirely exempted from it's attacks. He ascribes their security to the circumstance of their eating rye-bread; and so well assured was he of the antiseptic quality of this food, that in the above malignant epidemy, he ordered rye gruel for his patients. The success of this diluent, answered every expectation he had formed of it. The cooling and relaxing qualities of rye, make it highly probable, that a mixture of rye with wheaten flour, would obviate, in weak stomachs, the complaints which have been sometimes made against the latter, namely, that not being easy of digestion, it is apt to load the stomach and bowels with crudities, and to occasion worms. It is said that labourers in the country, who live entirely on *fine wheaten bread*, are liable to these complaints. Such bread therefore, is not so essential to them as is commonly imagined, at least it has, with it's advantages, it's defects.—*ibid.*



BARLEY-BREAD.

Barley, mixed with wheat, half and half, or potatoes one fourth and three-fourths barley, makes good bread.

The following proportions have been tried and strongly recommended. To four pecks of wheat, ground to one sort of flour, extracting only a very small quantity of the coarser bran, add three bushels and a half of barley flour, bolted through a twelve or fourteen shillings cloth. The oven should be hotter than when bread is made of wheat alone, and the loaves should remain in the oven three hours and a quarter.

POTATOE-BREAD.

Whilst Potatoes were considered only as an additional luxury of our tables, their usefulness as a food was little attended to. They did not become a serious object till the possibility of converting them into bread, that is, of increasing the quantity of that prepared from the flour of different grains, was perceived.

In the form of bread this root would certainly prove a most useful addition, in times of scarcity of grain, and at all times would be a sure way of making it serve from one harvest to another.

It ought to be observed that potatoes can nourish only in proportion to the quantity of substantial matter which they contain; and it would be ridiculous to require as much nourishment from a watery root as from a dry seed, which in order to be used as a food, must previously be combined with a fluid.

Next to wheat, Rye is the most valuable grain; both, mixed or separate, afford, if well prepared, a very excellent bread, without the necessity of any addition; but when they are scarce, the potatoe would



make a saving of other grains, and prove of considerable advantage to the indigent. The practice of using potatoes with barley, buck-wheat, maize, oats, millet, &c. is extremely wholesome; but bread made entirely of any of these grains is constantly heavy, close, and ill-tasted. In these cases, the addition of an equal part of potatoes would occasion very desirable changes in these several kinds, by giving tenacity and viscosity to the dough, by promoting the fermentative motion, by weakening and even destroying the disagreeable taste peculiar to each of them. The quantity of bread will not only be increased but the quality improved. The following Receipt for the Composition of a

MIXED BREAD,

will serve as a model for every kind made in this way with farinaceous substances. Take any quantity of potatoes, well crushed and bruised; mix them with the leaven prepared the evening before, in the usual manner, with the whole of the flour designed for making the dough, so that one half may consist of the pulp of potatoes and the other half of flour; knead the whole with the necessary quantity of warm water; observing that *less* water is required to make dough where potatoes form a part, than where flour alone is employed. When the dough is sufficiently prepared, put it into the oven, which should not be heated so much as usual, nor shut up so soon; the bread should also be left longer in; without these essential precautions, the crust of the bread would be hard and short, while the inside would have too much moisture and not be soaked enough. Whenever it is proposed to mix potatoes with the dough of different grains, either to save a part, or to improve the

bread, these roots should be reduced into the form of a glutinous paste, because in this state they give tenacity to the flour of small grain, which is always deficient in this respect. No way of preparing potatoes before mixing them with the flour, is so advantageous as boiling. The addition of a small proportion of ground rice, prevents the crumbling of the bread, and it is a more economical practice.

ANOTHER:

A quantity of potatoes is boiled in the skin, over a slow fire, by which method they fall to pieces throughout more effectually. After long boiling, they are peeled, and the most mealy selected; these are well bruised by a broad wooden spoon; and equal quantities, by weight, of this and flour are kneaded up with yeast for the oven. A small quantity of bran and milk, with a little salt, takes off the bitterness of the yeast. [Impure yeast may be improved by mixing it with the quantity of water required, and then filtering it through a hair-sieve half filled with *bran*; in passing through this substance it will be purified. It is of more importance, be assured, to attend to the cleanness and sweetness of yeast, than to any other ingredient in bread.] Milk adds much to the whiteness of bread, and is found to make it eat shorter and pleasanter. These, after standing about an hour, are to be run through a coarse hair sieve. After the whole is kneaded into dough, it is placed on a dish, laid on the hearth before the fire, and lightly covered with a cloth for about an hour, which promotes a kind of fermentation, and renders the bread lighter. —Communicated by J. Cook of Barking, to Dr. Lett-
som. “*Hints on Temperance, &c.*” v. 1. p. 46.



ANOTHER.

By Dr. Fothergill.

Take two or three pounds of potatoes, according to the size of the loaf you would make, boil them as in the common way for use; take the skin off, and, whilst warm, bruise them with a spoon, or a clean hand does better; put them into a dish or pan before the fire, to let the moisture evaporate, stirring them frequently, so that no parts grow hard; when dry, take them up and rub them as fine as possible between the hands; then take three parts of flour and one part of the prepared potatoes (or equal quantities of each) and with water and yeast make it, as usual, into bread. It looks as fine as wheaten bread, and tastes agreeably; it will keep moist a week, and should not be cut till it be full a day old, otherwise it will not appear sufficiently baked, on account of the moisture which the potatoes give it. Never cut potatoes into slices with a knife, either raw or boiled; but break or bruise them with the hand or spoon, or they will not be soft.

ANOTHER.

Take fourteen pounds of potatoes, boil them in the skin, then peel and crush them well, adding boiling water, till they form a stiff glutinous pulp: let it stand till it be not warmer than new milk; add two table-spoonfuls of yeast, mix them well, setting the whole near the fire in a wooden dish (as wood seems to promote this fermentation more than earthen vessels) for an hour or two till the whole assumes the appearance of a large quantity of yeast; to this add fourteen pounds of good sound wheat flour, and as much warm water as will make the whole into a stiff paste, let-

ting it stand, as is usual, to ferment a proper time ; but the fermentation goes on so rapidly, that it will generally receive three or four pounds more of fresh wheat-flour, when the bread is made up into loaves for the oven.

ANOTHER.

Take sixteen pounds of large mealy potatoes, boil them well, and break them in pieces. They must then be set out in the open air for half an hour to let the watery particles evaporate ; then rub them in with twenty-eight pounds of flour, till all the lumps be reduced ; after which mix a proper portion of yeast, and knead it into dough. This is for a large baking ; but may be reduced by only allowing two pounds of potatoes to three pounds and a half of flour ; or six pounds of potatoes to eight pounds of flour. The weight of the potatoes is considered in the state just previous to being mixed with flour. To bread, a few carraways or aniseeds may be added, with advantage.

Dr. Darwin asserts, that if eight pounds of good raw potatoes be grated into cold water, and after stirring the mixture, the starch be left to subside ; and when collected, it be mixed with eight pounds of boiled potatoes, the mass will make as good bread as that from the best wheaten flour. He likewise observes, that hay, which has been kept in stacks, so as to undergo the saccharine process, may be so managed, by grinding and fermentation, with yeast, like bread, as to serve in part for the sustenance of mankind, in times of great scarcity. As an instance of the very nutritive quality of hay, it is mentioned, that a cow, after drinking a strong infusion of it, for some time, produced above double the usual quantity of



milk. Probably, a nutritive beverage may be prepared from hay, either in it's saccharine state, or by fermenting it into a kind of beer.

The flour of Barley is more nutritious than that of wheat and is generally cheaper. Four pounds of potatoes, simmered to a pulp in clear soft water, mixed with one pound and a half of wheat flour, and the like quantity of barley flour, kneaded dry and stiff, and baked hastily, makes very excellent bread.

LEAVEN OF POTATOES.

Mix half a pound of pulp of potatoes with an equal quantity of the starch of this root, and four ounces of boiling water; set the mixture in a warm place: in forty eight hours a slight vinous smell should be exhaled from it; and then a fresh portion of starch, pulp, and water should be added, and the mass again exposed to the same temperature for the same space of time: this operation should be repeated a third time. The paste thus gradually turned sour, may be considered as a first leaven. In the evening, dilute the first leaven with warm water, mix equal quantities of starch and pulp, in the proportion of one half of the dough; so that for every twenty pounds of dough, ten of leaven must be prepared. When the mixture is exactly made, put it in a basket, or leave it in the kneading tub all night, taking care to cover it well, and keep it warm till morning.

The tedious and troublesome preparation of the first leaven will be avoided after the first baking, because a piece of the dough may be kept.

After all that has been said, it is certain that nothing is gained on the score of economy by making potatoes into bread, yet some people may prefer



them when brought into that form; and in times when grain is scarce, they become an excellent substitute.

In the north of England, Cakes are made of dough prepared in every respect as for loaves, and baked on stones over a coal or wood fire. It is observable that bread made in this manner is far more sweet and of a better colour than when made into thick loaves and baked in close ovens. From hence it may be inferred that ovens deprive bread of some of its active qualities.

BREADS OF INDIAN CORN.

Very good bread may be made of INDIAN CORN or Maize, (*Zea Mays*.) but it requires particular management. If it be mixed into a stiff paste, it will not be so good as if made only a little stiffer than for puddings. The paste of this consistence should be baked in a very hot oven, remaining therein all day and all night. It should be baked in tins; but these must not be of any great depth, otherwise the paste or dough will not rise well in the baking. If the Indian Corn be properly ground and sifted, so that all the coarser part of the hull be separated from it, bread made of it will be of a pale yellowish colour. A sufficiently white bread, if colour and not nutriment be regarded, may be produced by mixing it with half as much, or a third part of potatoe-meal. This corn is sometimes blended with half or a third part of rye or wheat meal, and made in the usual way, with leaven or yeast, into loaves of very good bread. Potatoe meal is an excellent addition.

The Milanese, according to the late Mr. Howard's report, make their bread of Indian Corn in the



following manner: To 48 ounces of the flour of this corn, 2 ounces of rye corn is added, as it will not adhere without it; 21 ounces of leaven, made of the flour mixed with water, and standing 24 hours; to this quantity the baker always puts in, at two different times, a pint and a half of warm water, and lets it stand one hour to rise; after which, putting a little rye on his hand, to prevent it from sticking, he divides it into saleable cakes of $12\frac{1}{2}$ ounces, made round, and about an inch and a half thick in the middle.

Another sort of bread of Indian flour is made as follows: 24 ounces of fine flour of Indian Corn, 12 ounces of rye, and 6 ounces of millet, worked up as the other, with warm water, and suffered to stand one hour to rise before it be put into the oven. It requires more baking than common bread, as it is moister, and becomes better when stale, or four days old. In the Milanese (the northern part of Italy), when the weather is very cold, it will keep eight days, but not otherwise. From half an hour to three quarters, according to the heat of the oven, the cakes or small loaves must continue, to be properly baked. This bread, is with milk, the chief food of most of the peasants and artisans in and about Milan. Mr. Howard was himself so fond of it, that he used no other bread whilst he was there. Instead of a leaven of flour and water, yeast may be used, which is preferable; and instead of the flour of rye or millet, we would recommend potatoe-meal to be mixed and kneaded with the dough or paste of the Indian Corn. It may be added in the proportion of one half or one third. The bread made in this way will be of a better colour and much lighter than that which contains an ad-



mixture of rye, barley, or millet-flour. The potatoe meal improves the quality of the dough, promotes the fermentation or rising of it, and weakens or destroys the peculiar taste of the Indian corn. In this way, not only the quantity of bread will be increased, but the quality of it will also be improved.

A very wholesome and well-flavoured bread may be prepared from a mixture of wheat-flour or of flour of Indian corn, rye flour, and fine oatmeal. Instead of using so much flour it will be more economical to employ only half the quantity, with an equal portion of potatoe-meal. The proportions may then be, flour of wheat or Indian corn, half a bushel; potatoe meal, half a bushel; rye-flour, 2 quarts; fine oatmeal, a pint. Knead them, as usual, with warm water, sweet ale yeast, and a proper quantity of salt. Let your dough rise a proper time, according to the season of the year; then knead again, form the loaves, and bake.

TURNIP-BREAD.

Various substances have been used for bread, instead of wheat. In the years 1629 and 1630, when there was a dearth in this country, bread was made in London of turnips, on the recommendation of Dr. Beale. In 1693, also, when corn sold at a very high price, a great quantity of turnip-bread was made in several parts of the kingdom, but particularly in Essex, as appears from a receipt registered in the "Philosophical Transactions." The process is, to put the turnips into a kettle over a slow fire, till they become soft; they are then taken out, squeezed, and drained as dry as possible, and afterwards mashed and mixed with an equal weight of flour, and kneaded with

yeast, salt, and a little warm water.
 following is

The fol-

ANOTHER METHOD

of making bread of Turnips, which deserves recommendation, on account of it's cheapness. Wash, cleanse, pare, and afterwards boil, a number of turnips, till they become soft enough to mash; press the greatest part of the water out of them, then mix them with an equal weight of wheat meal, make the dough in the usual manner with yeast, &c.; it will rise well in the trough, and, after being well kneaded, may be formed into loaves, and put into the oven. Bread prepared in this manner has a peculiar sweetish taste, which is by no means disagreeable; it is as light and white as the wheaten, and should be kept about twelve hours before it be cut, when the smell and taste of the turnip will scarcely be perceptible.

An admixture of currants or raisins in the dough for bread very much improves it's palatableness, but cannot be recommended as common food. There are very uncongenial qualities in these foreign fruits. The natives who pack them in casks, by treading them down with their feet, become leprous and scabby, and they rarely eat them either alone or mixed among their food. An experienced writer says, that our own hawthorn or elder berries, are not quite so improper. By way of experiment, he advises that a person eat a pint of plain water-gruel with bread and butter, and at another time take a pint with currants and sugar, and let him observe which is most cooling, and easy of digestion, and after which his spirits appear most active or lively.

It is a wholesome and economical practice never to consume any kind of Bread which has not been twenty four hours baked.



POTATOE BISCUIT.

Mr. Parmentier has shewn that a very wholesome and nourishing biscuit may be made from potatoes alone, in the following manner: mix a little yeast or leaven, diluted with hot water, with one pound of the pulp of boiled potatoes, and as much of the starch of potatoes (the manner of preparing which will be hereafter described). Of the whole form a dough, and knead it a long time; after which, divide it into pieces, flatten them and form them into the shape and size of common sea biscuits. A dram of salt added to every pound of potatoe starch, will render the biscuit made from it less insipid. The dough should be set upon plates, and remain about an hour before it be put into the oven, first pricking it with an iron skewer (the regular biscuit-makers have an iron instrument furnished with teeth for this purpose), in order to prevent it from swelling. As this dough contains but little water, it is more difficult to be baked; hence it must be left in the oven two hours at least longer than the bread. When the biscuit is taken out of the oven, it should be set in a warm place, that it may cool gradually, and be deprived of it's moisture; and it should be kept in as dry a place as possible. This potatoe-biscuit, when well prepared, has all the properties of common biscuit.

The kind of MACARON called TAGLIATI is made by taking any number of fresh laid eggs and breaking them into a bowl, beating them without frothing, and adding as much fine wheat flour as is necessary to form a dough of the consistence of paste,



Work this paste well, and roll it out into very thin leaves; lay ten or twelve of these leaves one upon the other, and with a sharp knife cut them into very fine threads. These threads are to be laid on paper and dried in the air. It is commonly eaten with milk instead of bread. It is sometimes fried in butter.

An inferior kind of cut paste may be made simply of water and wheat-flour.

SUBSTITUTES FOR FLOUR AND BREAD.

The following is a compendious view of the various substitutes which might advantageously be employed in the manufacture of this article of human subsistence, whether indigenous or exotic, and especially such as have been actually used, on the authority of creditable evidence.

1. **FARINACEOUS SEEDS:**—Wheat-grass, or *Triticum Spelta*; Millet, or *Panicum miliaceum*; Common Buckwheat, or *Polygonum fagopyrum*; Siberian Buck-wheat, or *Polygonum tataricum*; Wild Buck-wheat, or *Polygonum convolvulus*; Wild Fescue-grass, or *Festuca fluitans*; Maise or Indian Corn, the *Mays Zea*; Rice, or *Oryza sativa*; Guinea Corn or White Round-seeded Indian Millet, the *Holcus Sorghum*; Canary-grass, or *Phalaris canariensis*; Rough Dog's-tail Grass, or *Cynosurus echinatus*; Water Zizany, or *Zizania aquatica*; Upright Sea Lime-grass, or *Elymus arenarius*; Sea-reed, Marram, Helme, or Sea Matweed, the *Calamagrostis*, or *Arundo arenaria*.

The following mealy **FRUITS**, however, deserve a decided preference over many of the preceding: viz. Water Caltrops, or the fruit of the *Trapa natans*; Pulse of various kinds, such as Pease, Lentils, Beans, and the seeds of the common Vetch, Fetch, or Tare-



acorns, and especially those of the *Quercus cerris* and *esculus*; the seeds of the White Goose-foot, Common Wild Orage, or the *Chenopodium album*; the seeds and flowers of the Rocket, or *Brassica eruca*; the seeds of the Sorrel, or *Rumex acetosa*; of the different species of Dock, or *Laphathum*; of the Yellow and White Water-lilly, or *Nymphaea lutea* and *alba*; of the Corn Spurry, or *Spergula arvensis*; of the Spinage, or *Spinacia oleracea*; of the common Gromwell, or Graymill, the *Lithospermum officinale*; of the Knot-grass, or *Paniculum aviculare*; the Beachnut; the husks of the Lintseed, &c.

II. FARINACEOUS ROOTS: namely, those of the Common and Yellow Bethlem Star, or *Ornithogalum luteum* and *umbellatum*; of the Yellow Asphodel; of the Wake Robin, or *Arum maculatum* (after being properly dried and washed); of the Pilewort, or Lesser Celandine, the *Ranunculus ficaria*; of the Common Dropwort, the *Spiraea filipendula*; of the Meadow-sweet or *Spiraea ulmaria*; of the White Bryony, or *Bryonia alba*; of the Turnip-rooted Cabbage, or *Napo-brassica*; of the Great Bistort, or Snakeweed; of the Small, Welch, or Alpine Bistort; or the Common Orobush or Heath Pea; the Tuberous Vetch; the common Reed; both the Sweet Smelling and Common Solomon's Seal; the Common Corn-flag, or *Gladiolus communis*; the Salt marsh Club-rush, or *Scripus maritimus*, &c.

III. FIBROUS AND LESS JUICY ROOTS: viz. those of the Couch-grass, or Creeping Wheat Grass; the Clown's or Marsh Woundwort; the Marsh Mary-gold, or Meadow Bouts; the Silver-weed, or Wild Tansey; the Sea Seg, or *Carex arenarius*, &c.

CAKES.

The simplest Cake is made by mixing flour of any kind with mere water, to as light a consistence as will bear rolling out. It was in this manner that the pedestrian J. Stewart, could subsist in any part of the world. He strictly abstained from animal food, yet he found no place where wholesome grain or flour was not to be had, and he readily could render them palatable by boiling the former, or making the latter into cakes. The benevolent Howard, in similar circumstances, found great difficulty in being able to subsist; probably owing to a want of inclination to unbend to the employment of cookery. Mr. Stewart was so partial to this kind of cake, that he preferred it to any other, even when in London, generally making it himself. If no other means of baking offered, he had recourse to a clean gridiron, over a clear fire.

POOR ROBIN'S CAKE.

Mix two pounds of fine flour, two spoonfuls of warm water, and two spoonfuls of yeast, together. Warm a pint of milk sufficiently to melt a quarter of a pound of butter. Beat in four eggs, and a little salt. Mix them well together. Let the paste stand a sufficient time to rise; put it on tins in the oven; half an hour will bake them.

A COMMON SEED CAKE.

Take two pounds of flour, put into it half a pound of powdered sugar, one ounce of carraway-seeds beat-



en; have ready a pint of milk, with half a pound of butter melted in it, and two spoonfuls of new barm; make it up into a paste, set it to the fire to rise, flour your tin, and bake it in a quick oven.

PLAIN PLUM CAKE.

Take a pound of flour, rub into it half a pound of butter, the same quantity of sugar, beat four eggs very well (leave out half the whites) with three spoonfuls of yeast, put to it a quarter of a pint of warm milk, and make it up light; set it to the fire to rise; just before you put it into the oven put in three quarters of a pound of currants.

BATH CAKES.

Rub half a pound of butter into a pound of flour, with one spoonful of good yeast, warm. Take enough of cream to make it into a light paste, set it to the fire to rise, make it into round cakes, the size of a French roll, bake them on sheet tins.

LIGHT WIGS.

To three quarters of a pound of fine flour put half a pint of milk, made warm; mix in it two spoonfuls of light barm, cover it up, set it half an hour by the fire to rise, work into the paste four ounces of sugar, and the same quantity of butter; make it into wigs with as little flour as possible, and a few carraway-seeds; set them in a quick oven to bake.

POTATOE CAKE.

Wash your potatoes, and pare them well; grate them into water in a large earthen pan, (after washing the grater, otherwise it will make them black) then put them into a hair sieve, wash the flour from them;



as soon as it settles, pour the water from it and put on fresh, changing it thus three times. Then take the flour out of your pan, and spread it on an earthen dish, dry it gradually before the fire; when drying, be sure to stir it often, then beat it a little in a stone mortar, and pass it through a lawn sieve; to a pound of this flour add three quarters of a pound of butter, one pound of sugar, one pound of eggs, and a small wine glass of brandy and wine mixed. Separate the whites of the eggs from the yolks, put the yolks first to the butter, then beat the whites very light, and add them to the butter. Some like a few seeds. Remember to mix your ingredients with a wooden spoon and put your sugar in last. It must be baked in a quick oven for an hour and a half.



COMPOUNDS.

SOUPS.

It is fashionable to decry the use of Soups or liquid nourishment, but the moderate use of them is certainly wholesome; and it is astonishing that any should imagine they tend too much to relax the stomach. Does not all the liquid we take, even tho' cold, become in a few minutes a kind of warm soup in the stomach; and does not the stomach retain the same temperature during the whole day? Be careful only not to use soup hot, in too great a quantity at one time, nor too watery, and the use of it will be attended with great advantages. It supplies the place of other beverages, particularly to men of letters, women, and all who do not drink, or drink very little except at table, and who, when they give over soup, receive into their blood too little moisture. Fluids, used in the form of soup, unite much better and sooner with our juices than when drank cold and raw. On this account soup is a great preventive of dryness and rigidity in the body, and therefore the best nourishment for old people and those who are of an arid temperament. It even supplies the place of medicine. After catching cold, in nervous headaches, colics, and different kinds of cramp in the stomach, warm soup is of the greatest service. It may serve as a proof of the utility, or at least harmlessness, of soup, when I remark, that our forefathers, who certainly had more strength than we have,



used soup ; that it is used by the peasantry, who are much stronger and more healthy than those in polished life; and that all the old people with whom I ever was acquainted, were great friends to it."—*Art of prolonging Life, from the German of Hufeland, vol. 2. p. 252, 253.*

Soup is a dish of the greatest antiquity, and tho' capable of being made extremely delicious, yet it is not a favourite one in this country. People are fond of what they call solids, yet make them into soup by swallowing much drink after them. The only difference is, the foreigner makes soup in a pot, and the Englishman makes his in the stomach.

This kind of diet not only saves bread but beer. The labourer who lives on hasty pudding and soups, seldom has occasion for drink ; while he who is burnt up with dry bread and cheese, or salted flesh, has a continual thirst, and spends the greater part of his earnings in liquor. This, by acting as a powerful stimulous, may make him do more work for some time, but it generally cuts him off in the middle of his days. The English labourer, who works hard and drinks freely, seldom lives long, and is an old man when he should be in his prime.

If it be said that *slops* are here recommended ; they are such as the greatest heroes of antiquity lived on ; and such as produce the most calm and happy dispositions, the greatest degree of bodily health and strength, and extenuate the span of life to it's utmost length. The peculiar advantage of soups is, that they receive into their composition the greatest variety of nutritive substances, and may be prepared many different ways, so as to become adapted to any palate. Those who are once accustomed to such diet prefer it for the rest of their



lives. If children (for the habits of grown people are often inveterate, and error will be retained, even at the expense of reason and common sense) were accustomed to a simple wholesome diet they would always relish such a way of living.

But, what parents like themselves, however improper, they make their children take at every meal.

The German on his *polenta*, the American on his *mush*, and the Scotchman on his *hasty-pudding*, can make a hearty meal for a tenth part of what a tea breakfast would cost, and infinitely more wholesome.

—*Buchan.* Count Romford says, that a simple infusion of tea, drank boiling hot, as the poor generally drink it, is certainly a poison, which though it sometimes be slow in it's operation, never fails to produce fatal effects, even in the strongest constitution where the free use of it is continued for a considerable length of time.

The preparation of Hasty-pudding is a less tedious process than that of boiling a tea kettle, and as little fire is necessary for making soup, which is always best when made slowly.

Water is a compound element, and it is very probable it acts a more important part than is commonly assigned to it. It constitutes at least one part, and probably an essential one, of the food of plants.

Count Romford has, by a variety of experiments, and after five years' experience in preparing food for the poor at Munich, ascertained, that the cheapest, most savoury and nourishing food that could be provided, was a soup composed of *pearl*, or *Scotch barley*, *pease*, *potatoes*, *cuttings of fine wheaten bread*, vinegar, salt, and water, in certain proportions. The method of preparation is as follows. The water and barley are first put together into a ves-

sel and made to boil ; the pease are next added, and the boiling continued over a gentle fire about two hours ; the potatoes are then put in, (having been previously peeled with a knife, or having been boiled, in order to their being more easily deprived of their skins) and the boiling is continued for about one hour more, during which time the contents of the boiler are frequently stirred about with a large wooden spoon, or ladle, in order to destroy the texture of the potatoes, and to reduce the soup to one uniform mass. When this is done, the vinegar and the salt are added ; and last of all, at the moment it is to be served up, the fine and thin cuttings of bread. If the bread be dry and hard it will be better, as it will prolong the duration of the enjoyment of eating.

A portion of this soup weighing 20 ounces, making nearly one pint and a quarter, is generally found quite sufficient to make a good meal for a strong healthy person.

In the composition of food, regard should be had to prolong as much as possible the pleasure of eating. The enjoyments which fall to the lot of the bulk of mankind are not so numerous as to render an attempt to increase them superfluous. If a glutton can be made to gormandize two hours on two ounces of food, it is certainly much better for him, than to give himself an indigestion by eating two pounds in the same time.

There are many substances extremely cheap, by which very agreeable tastes may be given to food, particularly when the basis or nutritive substance is tasteless ; and the effect of any kind of palatable solid food may be increased, almost indefinitely, by reducing the size of the particles of such food, and causing it to act on the palate by a larger surface. And if means be used to



prevent it's being swallowed too soon, which may be easily done by mixing some hard substance, such as crumbs of bread rendered hard by toasting, or any thing else of that kind, by which a long mastication is rendered necessary, the enjoyment of eating may be greatly increased and prolonged.

Soup. $5\frac{1}{2}$ oz. Barley, 5 oz. peas, 18 oz. potatoes, $5\frac{1}{2}$ oz. of cuttings of bread, salt, and vinegar, to the taste; water in proportion to the consistency most palatable.

This soup may be improved, if necessary, by frying the bread in butter, by which it is not only rendered much harder, but being impregnated with an oily substance, remains hard after it is put into the soup. The bread may be cut in pieces of the size of large peas, or in thin slices; and after it is fried, it may be put into the dishes, and the soup poured on when it is served.

This soup may likewise be improved, by mixing with it various kinds of roots and green vegetables, as turnips, carrots, parsnips, celery, cabbages, sour-cROUT, &c.; as also by seasoning it with fine herbs and black pepper.—Onions and leeks may be used with great advantage, as they not only serve to render the food in which they enter as ingredients peculiarly savoury, but are really very wholesome.

Cheese may likewise be made use of for giving an agreeable relish to the soup; and a very small quantity of it will be sufficient, if it has a strong taste and be grated to a powder, and a small quantity thrown over the soup after it is dished out.

Barley-meal with all the bran in it, has been found to answer quite as well as pearl or Scotch barley, especially if boiled gently for a sufficient length of time before the peas be added. The peas should be put in when the water is



boiling or they may not become soft. The management of the fire in cooking is in all cases, a matter of great importance. From the beginning of the process to the end of it, the boiling should be as gentle as possible. If it were possible to keep the soup always just boiling hot, without actually boiling, it would be so much the better. Violent boiling, does not expedite, in the smallest degree, the process of cooking, but occasions a waste of fuel; and by driving away with the steam many of the more volatile and savoury particles of the ingredients, renders the victuals less good and less palatable. Water once made boiling hot, tho' it only boil gently, cannot be made hotter, however large and intense the fire under it may be made. To prevent the soup from burning, the boiler should be made double at the bottom, the two sheets of iron being in contact with each other.

A VERY CHEAP SOUP

may be made by taking 8 gallons of water, and mixing with it 5 lb of Barley meal, boiling it to the consistency of a thick jelly. Season it with salt, pepper, vinegar, sweet herbs, and crumbs of strong cheese. Instead of bread, add to it 5 lb of Indian Corn made into Samp. SAMP is Indian Corn deprived of it's external coat by soaking it ten or twelve hours in a lixivium of water and wood-ashes. This coat or husk, being separated from the kernel, rises to the surface of the water, while the grain remains at the bottom; which grain thus deprived of it's hard coat of armour, is boiled, or rather simmered for a great length of time, two days for instance, in a vessel of

water placed near the fire. The kernels when sufficiently cooked will be found swelled to a great size and burst open.

BROWN SOUP.

Take a small piece of butter and put it over the fire in a clean frying pan made of iron (not copper, that metal being poisonous); put to it a few spoonfuls of wheat or rye meal; stir the whole about briskly with a broad wooden spoon or a knife, till the butter has disappeared, and the meal is uniformly of a deep brown colour; great care being taken by stirring it continually, to prevent the meal from being burned to the pan. A very small quantity of this roasted meal, (perhaps half an ounce would be sufficient) being put into a sauce-pan and boiled with a pint and a quarter of water, forms a portion of Soup, which when seasoned with salt, pepper, and vinegar, and eaten with bread cut fine, and mixed with it at the moment it is served up, makes a palatable kind of food. This soup may be made in a short time, an instant being sufficient for boiling it. This food is much used by the Bavarian wood-cutters, who take provisions for a week. They consist of a large loaf of rye bread; a linen bag of roasted meal; some salt, and black-pepper; with a small pan. This method might be useful to travellers.

SOUP MADE AT IVER, IN BUCKS.

Take two gallons and a half of water; a quart of split peas, previously soaked for twenty four hours; two pounds of potatoes which have been well boiled the day before, skinned and mashed; herbs, salt, pepper, and two onions; and boil them very gently together for five hours, covering it closely up, and allowing as



little evaporation or steam from it as possible. Then set it by to cool. It will produce rather better than two gallons of soup; and, if properly made, there will be no sediment; but the whole will be blended and mixed together, when it is warmed for use. Were it not for the advantage of saving time to labouring families, Soups and Broths are best when eaten at the time they are made. Warming these liquids lessens their first palatableness.

PEASE SOUP.

Take the water in which pease have been boiled and add to it some flour and butter; also a little pepper and salt. Let this boil till the rawness of the flour be gone. Add to it, when served up, a small portion of good cream with some of the peas. Split-peas are preferable to whole pease, although the former are much dearer; they impart their virtues much more freely in the process of boiling. It often happens that whole pease are with difficulty made to burst, and sometimes cannot be made to do so at all. To remedy this defect, they should be first steeped in water for a few hours, and then put into a sieve to dry for twelve hours more. The boiling water will afterwards soon soften them. Pease that burst with difficulty, should be broken in a mill.

EGG SOUP.

Beat two eggs with a lump of butter, pour gradually a quart of boiling water upon it, stirring it quickly all the time. Put it on the fire till it simmers, continuing to stir it. Then pour it from one vessel into another, till it froth. Simmer it a little again and season it to your taste.



MILK SOUP.

Boil a pint of milk, with a little salt, and, if you chuse, sugar; arrange some sliced bread in a dish; pour over a part of your milk to soak it, and keep it hot, taking care that it does not burn. Beat up the yolks of five eggs, and add them to the remainder of the milk just when you are going to serve it up.

OR,

Boil three pints of milk with a bit of lemon peel, a few coriander seeds, a bit of cinnamon, a little salt, and about three ounces of sugar, till it be reduced to one half; strain it through a sieve, and finish your soup as before.

FRENCH SOUP.

In proportion as the soup is intended to consist of onions, turnips, cabbage, or celery, let them be parboiled; then stewed with a little water, butter, and salt. While this is going on, put a lump of butter into a stew-pan, with some onions, carrots, parsnips, and a head of celery, cut small; thyme, basil, cloves, parsley, chervil, &c. may be added. It should be observed, that the vegetables which are to be sent to table in the soup, are not to be put into the stew-pan; those which are stewed apart will be sufficient to give it the necessary flavour. Let all the vegetables you have be put into the stew-pan upon the fire for an hour and a half, turning them frequently till they be done; then add water, and let them boil for half an hour. Strain them through a sieve, and add the vegetables you have reserved apart to serve with the soup. When it is properly seasoned, mix bread with it.

PUDDINGS

are most commonly made of flour, eggs, milk, raisins or currants, and sometimes with butter, spices, &c. the preparations of which are so well understood by every experienced housekeeper, that it is unnecessary to particularize them. It may be remarked, that rich puddings are unwholesome, as a constant diet, and palling to the appetite. More simple compounds are preferable on every account. Upon flour and milk, or eggs and bread, or fruit and bread, a person might subsist many years without distaste or injury. Milk, is not essentially necessary in making good puddings. Where milk is scarce, water, with the assistance of Eggs, may be employed. Pancakes, (a delicate fried pudding) eat very well made with water instead of milk, if a larger portion than usual of flour be added.

YEAST DUMPLINGS.

The method of producing yeast from hops or the use of leaven, (see YEAST) is of important utility in remote situations or at sea. Surely it is better to have a large light substance than a heavy indigestible mass. This mode of raising flour for dumplings is attended with another beneficial effect, and which also deserves attention, it absorbs and takes up a much greater proportion of water than the simple mixing of flour and water. Take flour, a sufficient quantity, add water to make it into paste, put to it a little salt, spices and yeast. Set it before the fire to



ferment and rise, like leavened bread. Make it into small round pieces and put them into boiling water, let them continue to boil a sufficient time. Molasses, all-spice, and ginger, are frequently added to make them more savoury. These kind of dumplings are a good resource to the poor, when milk, and eggs are scarce and expensive.

APPLE DUMPLINGS,

eaten with butter and sugar, are perhaps the best of all dumplings, affording excellent nourishment, and are easy of digestion.

GOOSEBERRY PUDDINGS

are also an excellent kind.

HERB PUDDING

is made of spinage, beet, parsley, and leeks, a handful of each. Wash, scald, and shred them very fine. Have ready a quart of groats steeped in warm water for half an hour, and butter cut in small pieces, three large onions chopped small, and three sage leaves hacked fine; put in a little salt, mix all together and tie them up close. It will be necessary to loosen the string in boiling.

RICE PUDDINGS.

T. Bernard, Esq. treasurer of the Foundling Hospital, during the scarcity of wheat in 1795, recommended to that institution, to substitute rice puddings for those of flour. The flour puddings had taken one hundred and sixty-eight pounds of flour; the rice puddings required only twenty one pounds of rice, to make the same quantity and weight of pudding.



The result was, that one pound of rice went nearly as far as eight pounds of flour. The use of these puddings have ever since been continued at the hospital.

Boil a quarter of a pound of unground rice, till it be quite soft; put it on the back of a sieve to drain, and, when cold, mix it with three quarters of a pound of flour, a table spoonful of yeast, a tea cupful of milk, and a small table spoonful of salt. Let it stand for three hours; then knead it up, and roll it in a handful of flour, so as to make the outside dry enough to be put into the oven; about an hour and quarter will bake it. It will weigh 1 lb. 14 oz. and will keep eight days.

ANOTHER.

Let a quarter of a pound of rice, and double that quantity of raisins, be tied loosely in a cloth, and boiled for two hours; at the expiration of which time, it may be put into a dish, and carried to the table.

Or, the rice may be boiled in a cloth for one hour, when a quarter of a pound of butter is to be stirred in, and the pudding sweetened to the taste: it should then be boiled for another hour, after which it will be fit for immediate use.

ANOTHER.

If a quarter of a pound of rice be tied loosely in a cloth capable of holding five times that quantity, and then slowly boiled, it will produce above a pound of solid food; which eaten with sugar or boiled milk, forms a very palatable dish. And, if an egg, together with a quarter of a pint of milk, a small quantity of sugar, and grated nutmeg be added, it will afford a very agreeable pudding.



RICE WITH MILK.

Soak the rice over night in water; bake twelve ounces of rice with four and a half pints of milk, and three ounces of sugar.

SWEET RICE PUDDING.

Put a pound of rice in five pints of cold water, and boil it gently for two hours, by which time it will be of the consistency of thick paste; then add two pints of milk, and four ounces of treacle, and boil the whole gently for another hour; it will produce nearly nine pounds of sweet rice pudding.

RICE WITHOUT MILK.

Put one pound of rice into three quarts of boiling water, let it remain for twenty minutes, then skim the water, and add one ounce of butter, a little salt and spices. Let it simmer gently over the fire, closely covered, for an hour and a quarter, when it will be fit for use. It will produce rather more than eight pounds of savory rice. It is not necessary to strain the rice.

RICE AND BARLEY PUDDING.

One pound of rice, one pound of barley meal, a quarter of a pound of treacle, and one ounce of salt, boiled in two gallons of water, over a slow fire, make sixteen pounds of nutritious food; the whole cost amounting to ninepence.

A COMPOSITION OF BARLEY AND RICE.

To one pound of rice, and one pound of pot or Scotch barley, add two gallons of water. Let them boil ov-



er a slow fire for four hours, and be continually stirred. Before taken off the fire, add four ounces of sugar, and an ounce of salt. These articles will produce more food than ten people can eat.

MACARON RICE.

Put a pound of rice into five pints of cold water, and boil it gently for two hours, when it will be of the consistency of thick paste; then add two pints of milk, and two ounces of strong Cheshire cheese, grated fine, seasoned with pepper and salt. The whole to be boiled gently for another hour. It will produce nearly nine pounds.

MUCILAGE OF RICE

is obtained by boiling two ounces of fine rice flour with a quarter of a pound of lump sugar, in a pint of water till it become an uniform gelatinous mass: on being strained through a cloth, and suffered to cool, it constitutes a salubrious and nourishing food.

CHEAP RICE PUDDING.

During the scarcity of 1800, some humane people bought 32 lbs of Rice, 6 lb of butter, 12 lb of treacle or molasses, and 8 quarts of milk; these ingredients were made into a pudding, the whole expence of which amounted to one guinea. It was found to support 156 people for two days, who otherwise would have been subjected to want of food.

It is worth remarking, to economists at least, that the water in which rice has been boiled, answers every purpose of starch.



BOILED POTATOE PUDDING.

Boil half a pound of potatoes till they become soft, when they must be mashed, and rubbed through a sieve. Half a pound of fresh melted butter is then to be combined with a similar quantity of sugar; and all the ingredients are to be mixed up with six eggs, and a little brandy. The whole is then to be poured into a cloth, and boiled for half an hour, when it may be served, with some melted butter, sweetened with sugar; to which a small portion of wine may be added.

ANOTHER.

12 ounces of potatoes, boiled, skinned, and mashed.
1 oz of butter.

1 oz (or 1 - 16 of a pint) of milk, and

1 oz of Gloucester cheese.

Total, fifteen ounces, mixed with as much boiling water as is necessary to bring it to a due consistence, and then baked in an earthen pan.

ANOTHER.

To two pounds of potatoes, boiled, peeled and mashed, add one pint of milk, three eggs, and two ounces of moist sugar, mix them well together, and boil them in the usual way for near an hour.

POTATOE DUMPLINGS

are made by taking any quantity of potatoes, half boiled; skin or pare them; grate them with a coarse grater; mix them up with a small quantity of flour, one sixteenth, for instance, or less; add a seasoning of salt, pepper, and sweet herbs; mix the whole up with boiling water to a proper consistency, and form



the mass into dumplings of the size of a large apple. Roll them, when formed, in flour to prevent the water from penetrating them. Boil them till they rise to the surface of the water.

BAKED POTATOE PUDDING.

The Potatoes should be first well boiled, then freed from the skin, and afterwards set for about half an hour in the open air, if dry, or before the fire, in order to let the watery particles evaporate. The potatoe pulp is to be beaten up with milk and eggs and then baked. Instead of baking, it might be boiled in a pudding cup, tied over with a thick close cloth, in the usual way ; but baking answers better. This pudding is exceedingly palatable and nourishing. To give it a better consistence, a small quantity of flour may be beaten up with the potatoe pulp.

ANOTHER.

Take twelve ounces of potatoes, boiled, skinned and mashed ; one ounce of milk ; two eggs ; half an ounce of grated cheese ; mixed well together, and baked in a pan.

PEASE PUDDING

is made by boiling the pease quite tender in a cloth. It is then to be untied, and a good piece of butter, a little salt, and some beaten pepper is to be mixed. The pudding is then to be tied up again, and boiled an hour longer.

CHEAP PEASE PUDDING.

To a pint of pease, when made into pudding, add two pounds of potatoes, boiled and well mashed. This mixture eats as if it were entirely pease-pudding.



PUDDING OF CARROT.

Pare off some of the crust of fine white bread, and grate off half as much of the rest as there is of the root, which must also be grated. Then take half a pint of fresh cream or new milk, half a pound of fresh butter, six new laid eggs (taking out three of the whites) mash and mix them well with the cream and butter. Then put in the grated bread and carrot, with nearly half a pound of sugar, a little salt, some grated nutmeg and beaten spice. Pour all into a convenient dish or pan, which has been buttered, to keep the ingredients from sticking and burning; set it in a quick oven for about an hour. In this manner a pudding may be made from any root.—*Evelyn's Acetaria.*

PUDDING OF PENNYROYAL.

The cream, eggs, spice, &c. as in the foregoing, but not so much sugar and salt. Take a good quantity of pennyroyal and marigold flowers, &c. very well shred, and mix them with the cream, eggs, &c.; four spoonfuls of sack; half a pint more of cream, and half a pound of butter; the gratings of a twopenny loaf. Stirring all well together, flour the bag before you put it in, and tie it fast. It will be sufficiently boiled within the hour; or it may be baked in the pan like the carrot pudding. The sauce for both is a little rose-water, less of vinegar, with butter beaten together, sweetened with the sugar-caster.

SPINAGE PUDDING.

Take a sufficient quantity of spinage, beat it and strain out the juice; put to it grated fine bread, the

yolk of as many eggs as in the former composition of the carrot pudding; butter, nutmeg, sugar, some currants; a few carraways, and rose or orange-flower water, to make it grateful. Mix all with a little boiled cream; and set the dish or pan in the oven with a garnish of puff-paste. It will require but very moderate baking.—*Evelyn's Acetaria.*

SAGO PUDDING.

Boil four ounces of sago in a quart of good milk till soft, when cold, put in six eggs, leaving out three of the whites, well beaten; add grated bread, sugar, nutmeg, and wine, to your taste. Half an hour will boil it. Sauce may be made of melted butter, wine, and sugar.

BREAD PUDDING

seems an unnatural preparation. Surely nothing can be proper which is twice prepared, if the first preparation be perfect.

However, if expedition be required, a wholesome dumpling may be made by piercing well with a fork the two-penny loaves called, in some places, manchets, and putting them into soup when boiling. Melted butter, sugar, and vinegar, may be used as a sauce.

Batter Puddings, Apple Dumplings, Gooseberry Puddings, Plain Puddings, Plumb Puddings, and Hard Dumplings, are so well known that it is not necessary to particularize their composition.

BURGOO or BURGOUT,

is a nutritive dish eaten by mariners, and much used in Scotland. Some say it is made of groats boiled in water till they burst, and mixed with water: others, that it is made by gradually adding two quarts of wa-

ter to one of oatmeal, so that the whole may mix smoothly; then boiling it for a quarter of an hour, stirring it constantly, after which a little salt and butter should be added. It is in either way a cheap and nutritive dish.

COMMON HASTY PUDDING

is made by taking equal quantities of milk and water, and when it begins to boil, sift in, with the hand, wheat flour, very gradually, till it be of the consistence desired; remembering to keep stirring it, and not to put it in so quickly as to prevent it from boiling all the time. This pudding may be eaten with milk, or sugar and butter.

ANOTHER.

Let equal parts of milk and water, suppose a pint each, with a little salt, be made to boil gently; stir gradually into it two table spoonfuls of flour, previously well mixed with half a pint of cold water; keep this over the fire for ten minutes, scarcely boiling, and it will produce about a quart of very pleasant pudding, or pottage. It may be rendered palatable by a little sugar and ginger, or nutmeg.

OAT-MEAL HASTY-PUDDING.

In the north of England, hasty-pudding is made entirely from oatmeal and water. (In Yorkshire called water-pottage.) The water is first put into a pan, with a little salt; when it boils, the oatmeal is sprinkled into it by degrees, as in the former article, till it has acquired the consistence of molasses. When it is cool enough for eating it will have acquired some firmness. It may be eaten, like the former, with milk, ale, small beer, sugar, molasses, butter, &c.

HERB POTTAGE.

Take four quarts of spring water, two or three onions, stuck with some cloves, two or three slices of lemon peel, salt, whole white pepper, mace, a scrap-
ing or two of ginger, tied up in a fine cloth, all to be boiled for half an hour. Then having Spinage, Sorrel, white chard Beet, a little Cabbage, a few small
Tops of Cives, washed and picked clean, shred them well and cast them into the liquor, with a pint of blue pease, boiled soft, and strained with a bunch of sweet herbs; the top and bottom of a roll. Suffer it to boil for three hours, and then dish it with another small roll, and slices of roll about the dish. Some cut bread in slices, and frying them brown, put them into the pottage, just when it is going to be eaten.

The same herbs, clean washed, broken and pulled assunder only, being put in a close covered pipkin, without any other water or liquor, will stew, in their own juice and moisture. Some add a whole onion, which after a while should be taken out, remembering to season it with salt and spice, and serve it up with bread and a piece of fresh butter.— *Evelyn's Acetaria*.

BREAKFASTS AND SUPPERS.

If thick water gruel, well boiled, with a small quantity of milk, treacle, or, occasionally, rice, were given to children, instead of bread and butter, they would be found infinitely more nourishing, equally palatable, and very much cheaper. It is also the most proper supper for children, and greatly to be preferred to the practice of feeding infants with bread and butter, or bread and cheese and malt liquor.



Boiled potatoes and milk make an excellent breakfast or supper.

PEASE POTTAGE.

Take four quarts of water, to which put a pint of split or other peas, set them on a gentle fire, and let them boil slowly for three or four hours. Add a little dry sage or mint rubbed into powder, and shred an onion into it. After the herbs are boiled, put two spoonfuls of wheat-flour, made into batter, with cold water. When boiled up it will be ready. This will make about two quarts of excellent food at a very trifling expense.

FLOUR WITH EGGS.

Take a quart of good water and set it on the fire to heat. Then put two spoonfuls of wheat flour, and two or three eggs into some water and beat them well together. When the water nearly boils the thickening may be put in, keeping the whole in motion with a spoon till it be ready to boil; then take it off and add to it bread, salt, and butter. Let it stand to cool till it be new-milk warm.

FLUMERY

was the ancient gruel of the Britons, and is still retained among the Welch. It is made in the following manner. Take two or three spoonfuls of oatmeal and put it in a portion of water, where let it remain till it be rather sour. It may then be put in a proper vessel and placed on a quick fire till it becomes hot and begins to rise. To prevent it from boiling, move it with a ladle for five minutes, and then it will be ready.

It was anciently used in different ways, as with ale mixed in it, and eaten with bread; others mixed with it-milk, cream, &c. but the best way is certainly to eat plain bread with it.



MODERN FLUMERY.

Let half a peck of oatmeal or wheat bran, not overmuch boulded or sifted, be put to two gallons of water, and left to soak for three or four days. Then strain, or rather press out the liquid; boil it to a jelly, by reducing it by evaporation to one third. In this state it will keep long. When used, sweeten it with sugar, and put in orange flowers, or rose water. Some prefer cream or milk, and others wine or ale.

WELCH DISHES.

Take three handfuls of oatmeal, mix it in two quarts of fair spring water, which let stand a day and a night; gently drain off the water, and throw it away, add the same quantity of water again, and drain it through a sieve to clear it from the bran, &c. it may then be boiled, and sugar or treacle added.

Slice boiled potatoes, while hot, into milk, and add a little salt.

Milk and wheat flour, boiled; some sugar added.

HASTY PUDDING MADE OF INDIAN CORN.

The cheapest and most advantageous method of using Indian corn as food, is by making the flour of it into hasty pudding, in a manner very similar to water-pottage (a food made of oat-meal in the North of England and in Scotland). A quantity of water, proportioned to the quantity of hasty pudding intended to be made, is put over the fire, in an open iron pott or kettle, and, a proper quantity of salt for seasoning the pudding being previously dissolved, as soon as the water begins to boil, the Indian meal is stirred in to it, by little and little, with a spatula of wood for



the purpose, or a spoon, while the water is kept continually boiling. Great care is to be taken to put in the meal gradually and slowly, by taking a handful and passing it through the fingers, stirring the water at the same time with the other hand, to mix the meal so as no lumps be formed. When the substance attains the thickness of gruel, half an hour longer should be employed in adding the additional quantity of meal necessary for bringing the pudding to the proper consistency. We repeat, that during the whole time it should be *constantly stirred and kept boiling*. When completed, it should be of a consistence sufficient nearly to suspend the spatula or spoon upright. It may be eaten with milk, or with butter, sugar, or molasses.

Indian Corn may be made also into what the Americans call a

PLAIN INDIAN PUDDING,

which is formed by taking three pounds of Indian meal and stirring it well with five pints of boiling water, then add three quarters of a pound of molasses and one ounce of salt. When stirred well together put the mixture into a bag, leaving a space of one sixth of it's contents to give room for the pudding to swell. Boil the bag and contents in water, six hours, without intermission. The loss of water by evaporation is to be supplied with boiling water from another kettle.

The best form for a bag is a truncated cone. The bag should be wet before the pudding is poured into it. An agreeable variety may be made in this pudding by the addition of cuttings of apples.

These apples may be cut in small pieces as soon as



gathered from the tree, and by drying them in the sun, they may be kept good for several years. In America, various kinds of berries, found in the woods are preserved in this manner.

HOMMONY

is prepared by removing the husk and skin of the Indian corn, which is generally done by a small portion of the lye of wood-ashes mixed with water; it is then commonly boiled with kidney-beans, and when cooked, forms a kind of mess like hasty-pudding; it is frequently eaten with milk, and sometimes fried after it is cold, in which state it is excellent.

PANADO

is made by grating bread into hot water, and adding currants, mace, and cinnamon, when boiled to a tolerable consistency, put in sugar, yolks of eggs, and white wine; or currants and some butter only may be added to the bread.

PIES,

of Apples, Pears, Cherries, and Plumbs are very wholesome, provided that the fruit be thoroughly ripe; that no improper ingredients, such as sugar, be added; and that the crust be made without butter, which renders it exceedingly difficult of digestion.

The best pies, of whatever kind of fruit, are made by making a paste of good wheat flour, and warm milk and water with a little leaven or yeast.

In baking pies, the mouth of the oven should be left a little open, in order to preserve their natural colour, taste and smell. When they are drawn out of the oven a hole should be open in the top of each. They are rendered less wholesome when eaten hot with butter.

PIE OF HERBS.

A herb pie is thus made. Boil fresh cream or milk, with a little grated bread or Naples biscuit, to thicken it; a good parcel of chevil, spinach, beet, or whatever herbs you are partial to, being first parboiled and chopped. Then add macaroon or almonds, beaten to paste, a little sweet butter, the yolk of five eggs, rejecting three of the whites. To these add some currants, plumped or boiled in milk. Then sugar and spice at discretion, and stirring all together, over the fire, let it be put in a tart-pan and baked.

ANOTHER.

Take a sheaf of young parsley, six onions, and sweet beet; a penny loaf crumbled, and two eggs; shred



the herbs fine, grater the bread, and add the eggs when beaten with a sufficient seasoning of pepper and salt. Put into your dish a lump of butter and cover the whole with paste. To bake it, in a moderate oven, requires an hour.

SEASONINGS.

SALT,

as an article of diet, seems to act simply as a stimulus, not containing any nourishment, and is the only fossil substance which the caprice of mankind has yet taken into their stomachs along with their food; and, like all other unnatural stimuli, is not necessary to people in health. Tho' it may be useful as a medicine, it's common use has a debilitating effect. It seems to be the immediate cause of the sea scurvy, as those patients quickly recover by the use of fresh provision; and it is probably a remote cause of scrophula (which consists in the want of irritability in the absorbent vessels) and is therefore necessary to these patients, as wine is necessary to those whose stomachs have been weakened by it's use. The universality, however, of the use of salt with our food, and in our cookery, has rendered it difficult to prove the truth of these observations. If a person unaccustomed to much salt should eat a couple of red herrings, his insensible perspiration will be so much increased by the stimulus of the salt, that he will find it necessary in about two hours to drink a quart of water: the effects of a continued use of salt in weakening the action of



the lymphatic system may hence be deduced.—*Dr. Darwin's Bot. Garden. pt. ii. pa. 159.*

SUGAR.

Dr. Benjamin Rush, Professor of the Institutes of Medicine in the University of Pennsylvania, in his account of the manner of obtaining sugar from the sugar Maple Tree, (*Acer saccharinum*) says, "Sugar affords the greatest quantity of nourishment, in a given quantity of matter, of any substance in nature. It has this peculiar advantage over most kinds of aliment, that it is not liable to have it's nutritious qualities affected by time or the weather: hence it is preferred by the Indians in their excursions from home. They mix a certain quantity of maple sugar, with an equal quantity of Indian Corn, dried and powdered, in it's milky state. This mixture is packed in little baskets, which are frequently wetted in travelling, without injuring the sugar. A few spoonfuls of it, mixed with half a pint of spring water, afford them a pleasant and strengthening meal. The plentiful use of sugar in diet, is one of the best preventives which has ever been discovered, of the diseases produced by worms.

Nature seems to have implanted a love for this aliment in all children, as if on purpose to defend them from those diseases.

Sir John Pringle has remarked, that the plague has never been known in any country where sugar composes a material part of the diet of the inhabitants.

The sugar obtained from the Maple-tree is preferable to the West India sugar from it's superior cleanliness. It is prepared in a season when not a single insect exists to feed upon it, or to mix it's excretions with it, and before a particle of dust, or the pollen of



plants, can float in the air. The same observations cannot be applied to the West India sugar. The Maple-sugar leaves less sediment, when dissolved in water than the West-India sugar. It has been said, that sugar injures the teeth, but this opinion now has so few advocates, that it does not deserve a serious refutation.

The nutritious properties of sugar, taken in a solid form, are now universally acknowledged. As dissolved in tea they are lost. It is worthy of observation also, that sugar taken into the stomach in substance never disagrees, whereas in a diluted solution, as in tea, it frequently produces heart-burn. Besides, a much smaller quantity suffices to impart an agreeable sweetness to a solid, than is requisite to conceal the acrid bitter of an infusion of tea,"—*Practical Economy*. Yet the improper use of sugar has it's pernicious effects. Qualified with this seasoning, fruits are gathered and eaten in an immature state; particularly gooseberries, having no more virtue in them than the leaves or stalks of the trees on which they grow.

A SUBSTITUTE FOR SUGAR

has been proposed to be obtained from honey, by Father Giovane Batista da St. Marine, an ingenious Venetian monk: his method is as follows.—To three parts (by weight) of honey, eight of water must be added; together with one part of charcoal, broken to pieces, but not reduced to powder. This mixture should boil for one hour, when it should be filtered; and, after having been thus purified, it is to be evaporated over a slow fire, till it acquire the consistence of a thick syrup, which will be as palatable as sugar.



MOLLASSES

may be divested of it's mawkish taste, and rendered fit to be used as a substitute for sugar, in the following manner. Let twenty four pounds of molasses, a similar quantity of water, and six pounds of charcoal coarsely pulverized, be mixed in a kettle, and the whole boiled over a slow fire. When the mixture has simmered for the space of half an hour, it must be decanted in a deep vessel, that the charcoal may subside; after which the liquid should be poured off, and again placed over the fire, that the superfluous water may evaporate, and restore the syrup to it's former consistence. Twenty-four pounds of molasses thus refined, will produce an equal quantity of syrup. This method has been successfully practised on a large scale, in Germany; and, we conceive it might be advantageously imitated; for the molasses thus become sensibly milder, and may consequently be employed in various articles of food. For dishes, however, in which milk is an ingredient, or for cordials which are to be mixed with spices, it will be preferable to make use of sugar.—*Domestic Encyclopædia.*

FUNGUS.

Let it not appear surprising, that among the seasonings, we have enumerated no species of Fungus, tho' they all grow spontaneously on the hills, and in the woods and plains. Most of these singular plants contain a poison of great activity; and, unhappily, we are deficient both in chemical and botanical means of establishing certain marks of distinction between them, which may serve to characterize their effects,

and at the same time prevent the fatal mistakes every day made in choosing them: it would then be better, as Geoffery expresses it, to return mushrooms reared in beds to the dunghill whence they sprung.

Mushrooms are not nutritious; they only contain a savoury substance, which may easily be dispensed with; and, since there is no way to distinguish the mushroom which is essentially poisonous, from that which may be rendered poisonous by numerous accidents, let us not hesitate to proscribe it from the class of seasonings, by substituting the heart of artichokes, celery, and the root of parsley and other garden plants; in which it would be easy, on enquiry, to discover the seducing relish of the deceitful mushroom.—*Parmentier*.

The odour of most Fungi is mephetic. They have also a very septic and corroding power, consuming, within a year, the trunks of trees on which they grow. Altho' some of them are less poisonous than others, yet those who collect them, are neither able, nor take any pains to distinguish them.

OVENS.

The lowest part of the community are often debarred from the benefit of an oven from the expense of erecting one with brick and lime. The following method of making ovens, universally practised by every farmer in Canada, is worthy of imitation and adoption, as the poorest person may make one at little or no expence, save a trifling portion of pains and labour.



At a convenient distance from the house make a platform, of about six or seven feet square, of earth, stone, or wood; raise it about three feet from the ground; procure a quantity of clay, and one third of sand; beat and mix it well with water to the consistence fit for making bricks. With this clay cover the top of the square about six or seven inches thick, and make it perfectly smooth and level. Provide a number of laths, twigs, or small branches of trees, which will easily bend into an oval shape. On the moist clay, mark out the size of the oven; then bend the twigs, or other materials, into the shape and size of the oven, leaving at one end, a vacancy for the door of the oven, in proportion to the size, sticking the ends of them into the clay. When finished, it will appear like a basket, turned upside down. The next step is to plaster it over with clay, about an inch at a time, letting it dry a little at each time of plastering, till the thickness of eight or nine inches have been added. Then fill the oven with wood or coals, and set it on fire; and where any cracks appear in the arch, work in some clay, and plaster it over. The fire must be continued till the whole is burnt to the state of a brick. An oven made in this manner, if properly covered from rain, will last a long time.—*Cochrane's Seamen's Guide.*

LIQUIDS.

We should never neglect to use a sufficient quantity of drink. It too often happens that people, by inattention to the calls of nature, neglect drinking entirely, which is the grand cause of aridity, obstructions in the abdomen and a multitude of diseases to be found so frequently among men of letters, and females, who lead sedentary lives. But let it be observed, that the best time for drinking is not while one is eating, as the gastric juices are thereby rendered too thin, and the stomach weakened—but about an hour after meals. “The best drink is

WATER,

a liquor commonly despised, and even considered as prejudicial. I will not hesitate however,” says Dr. Hufeland, “to declare it to be one of the greatest means of prolonging life. But one great point should be regarded, namely that the water be *fresh*, that it be recently drawn from a spring or running stream, and be put into a vessel well stopped ; for all spring water, like mineral, contains fixed air, which renders it strengthening and favourable to digestion. Pure, fresh water has the following advantages, which ought to inspire us with respect for it. The element of water is the greatest and only promoter of digestion. By it’s coldness and fixed air, it is an excellent strengthener and reviver of the stomach and nerves. On account of it’s abundance of fixed air, and the saline particles it contains, it is a powerful preventive of bile and putrefaction. If



assists all the secretions of the body. Without water there could be no excretion; for according to the latest experiments, oxygene is a component part of it. By drinking water we actually imbibe a new stimulus of life.—*Art of preserving Life, vol. 2, p. 250, 251.*

It seems unreasonable to suppose that the water which we drink does not furnish a part of our subsistence. The following fact seems to confirm this idea. It is given by Dr. Anderson, in his “Bee,” vol. xi, p. 167, as follows. About twelve years ago, (Oct. 1792) a woman in Rossshire lived several years without tasting any other kind of food, besides pure water alone. The fact was authenticated in the most undeniable manner; and Sir John Lockhart Ross assured me, that he visited her after she had been on that regimen several years, and found her complexion fresh and clear, her breasts plump, and her body far from being in that emaciated state he expected.”

“The very great benefits I have myself experienced,” says Mr. Sandford, (the ingenious author of “Remarks on Wine and Spirits,” &c. 12mo. Cadell and Davies,) “in exchanging the usual stimulant beverage of fermented liquors, for a more diluting one, leave me no hesitation in pronouncing *pure Spring Water* to be unquestionably (with some few exceptions) the best liquor to be taken with our meals, tho’ condemned as prejudicial by some, and rejected, for no just reason, by others. The following advantages resulting from it’s use, may possibly recommend it to those who are unacquainted with it’s general properties, viz. that it is a great promoter of digestion in healthy stomachs, and by it’s coldness assists to lower the heat usually generated in this process. It is a powerful preventive of biliary concretions or gall-

stones, as they are called, and of urinary calculi, or gravel. It also assists all the secretions of the body; and as, according to the latest satisfactory experiments of Lavoisier, *Oxygen*, or vital air, is a component part of it, by drinking water, we actually receive fresh vital power. It is a liquor too, which may be found naturally in all climates; and is agreeable to most palates; many take no other drink during their whole lives, and yet enjoy good health, tho' engaged in laborious occupations; a proof that water is well suited to answer every ordinary purpose of the animal œconomy.

Sir John Floyer tells us, agreeably to the *humoural* doctrines of his day, that "those who use cold water for their common drink have their humours least rarefied, and escape those diseases which affect the head, as apoplexy, palsy, blindness, madness, &c. If the virtues of cold water were duly considered, every one would value it as an important medicine. To the use of it children should be bred from their cradles, because all strong liquors are injurious to their constitutions."

Good wholesome water is, according to Fourcroy, generally to be discovered by the following characteristic distinctions: it is very clear and limpid, no extraneous body alters it's transparency; it has no kind of smell; it has a lively, fresh, and almost pungent taste; it boils readily without losing it's transparency; it entirely dissolves soap in such a manner as to form a fluid, seemingly homogeneous. Spring or river water, which filtrates, or flows through sand, is in continual motion, and not polluted with the putrefaction of animal or vegetable substances, is found to possess all these properties. This kind of water passes easily through the stomach and



intestines, and is therefore favourable to digestion. On the contrary, water which stagnates in subterraneous cavities; which has no current; is overgrown with plants or abounds with insects; is very shallow, and has a soft muddy bottom, consisting of putrid vegetables, or containing calcarious salts, or clay; all such water is unwholesome. Waters, impregnated with the latter substances, are called crude or hard, and are oppressive to the stomach and unfavourable to digestion. Armstrong has given directions for the choice of water in the following lines.

“What least of foreign principles partakes
is best; the lightest then what bears the touch
of fire the least, and soonest mounts in air.
'The most insipid, the most void of smell.

.
'Tho' thirst were e'er so resolute, avoid
the sordid lake, and all such drowsy floods
as fill from Lethe Belgia's slow canals
(with rest corrupt, with vegetation green;
squalid with generation and the birth
of little monsters), till the power of fire
has, from prophane embraces, disengag'd
the violated lymph. The virgin stream
in boiling wastes it's finer soul in air.”

It appears that water owes it's pleasant, fresh taste, to air, which is combined with it; for, when boiled, the first bubbles that rise consist of air, and the water after it has lost them, has no longer the same lightness or relish. It recovers these properties by being exposed for some time to the atmosphere, or by being briskly shaken. By distillation, wa-



ter is obtained perfectly pure and separated from the earthy and saline matters generally contained in it, which are left at the bottom of the vessel.

Distilled water has an insipid taste, and when drank oppresses the stomach with a kind of weight; but having been exposed to the open air, and briskly shaken, it recovers it's taste, and may be drank with safety; for distillation does not alter water, it only deprives it of the air, which is always united to it, in it's ordinary state.

No natural fluid is susceptible of more combinations than water, and it has on this account, long held the name of the *great Solvent of Nature*.

The scientific author of "*Zoonomia*," ranks water amongst the *nutrientia*, or substances affording nutriment, in his arrangement of the *materia medica*, contained in that work, and observes that "water must be considered as part of our *nutriment*, because so much of it enters into the composition of our solids, as well as of our fluids; and vegetables are now believed to draw almost the whole of their nourishment from this source; it has however other uses in the system, besides that of a nourishing material, as it dilutes our fluids, and lubricates our solids; and on all these accounts a daily supply of it is required. It was formerly believed, that waters replete with calcarious earth, such as encrust the inside of tea-kettles, or are said to petrify moss, were liable to produce or to increase the stone in the bladder, This mistaken idea has lately been exploded by the improved chemistry, as no calcarious earth, or a very minute quantity, was found in the calculi analysed by Scheele and Bergman. The waters of Matlock and Carlsbad, both of which cover the moss which they pass through, with a calcarious



crust, are so far from increasing the stone of the bladder or kidneys, that those of Carlsbad are celebrated for giving relief to persons labouring under these diseases. Those of Matlock are drank in great quantities without any suspicion of injury; and I well know a person who for above ten years drank about two pints a day of cold water from a spring, which very much incrusts the vessels it is boiled in, with calcarious earth, and affords a copious calcarious sediment with a solution of salt of tartar, who yet enjoys a state of uninterrupted health." The too prevalent and mistaken idea that "Water impoverishes the blood, and is therefore hurtful to the constitution; that it has a tendency to diminish the strength, and depress the spirits; has, I believe, prevented many persons from adopting the use of it: but we have abundant instances in contradiction to these suppositions, in ancient, as well as in modern, times.

The illustrious Haller attributed to the use of water alone, the perfection of all his senses, and particularly that of sight, tho' he exercised his eyes very much in microscopic observations, even to a late period of his life. The late Dr. Benjamin Franklin, who died at the advanced age of 84, appears to have been well acquainted with the good effects of a water regimen, as well as of the necessity of nourishing the body by *solids*, rather than by *fluids*; which he had proved in his own person. He states, that when a journeyman printer, he never drank any liquid besides water, during his work. When his fellow-labourers ridiculed him for his temperance, and told him that it was impossible to work at the press without strong drink in considerable potions, he discovered to them that he never drank strong liquors, and

yet could work better than they who did. He demonstrated to them, likewise, that there was more nourishment in a penny loaf, than in a quart of ale; because there was more grain in one than in the other, and consequently that the former would go farther towards enabling a man to work, than the latter.

John Wilson of Sosgill, Cumberland, died in April 1799, at the advanced age of 100. He exercised the trade of a blacksmith during sixty years, in all which time his beverage was milk and water, with the exception of only two glasses of ale, and one of spirituous liquors, during the whole course of his life. It

has been asserted by the late Dr. Johnson, who for many years never tasted wine, that Waller, who was a lively and cheerful companion, was a water-drinker; notwithstanding which, he was enabled, by his fertility of mind, to heighten the mirth of Bacchanalian assemblies; and that his friend Mr. Saville said, “no man in England should keep him company but Ned Waller, without drinking.”—*Boswell's Johnson*.

The late celebrated Mr. John Hunter drank no wine for the last twenty years of his life; notwithstanding which, his mind and body, except disturbed occasionally by some very extraordinary paroxysms, were never more vigorous and active, than during this period; of which many of the philosophical works of this able anatomist and physiologist, now in the hands of the public, may be regarded as affording ample proof. Mr. Hunter was, notwithstanding, well known in his younger days to have been a *bon vivant*.—*Home's Life of Hunter*.

Dr. Hufeland mentions an instance of a very respectable surgeon-general of the German army, a Mr. T——, who ascribed his healthy and long life of more than eighty years,



chiefly to the daily use of fresh spring water, which he drank for upwards of forty years. Between his thirtieth and fortieth years, he was a most miserable hypochondriac, oppressed with the deepest melancholy, tormented with palpitations of the heart, &c. and imagined he could not live six months; but from the time he began a *water* regimen, all these symptoms disappeared, and in the latter half of his life, he enjoyed better health than before, and was perfectly free from hypochondriac affection.—*Art of prolonging Life.*

The great advantages which the ingenious Dr. Darwin experienced by leaving off fermented liquors, may be seen detailed by himself in the 2nd vol. of his “*Zoonomia*,” p. 452; where, after having described his own case of gout, and observed that “example has a more forcible effect than simple assertion,” he says, “that for upwards of twenty years, he has been in the habit of drinking water, and has been kept in perpetual health, except accidental colds from the changes of weather; that before he abstained from fermented liquor, he was subject to piles, gravel, and gout, neither of which he has since experienced, except the latter, and that in a very slight degree.”

Dr. A. Fothergill mentions the case of his friend Dr. B. Pugh, of Midford-castle, who having from early youth abstained from wine and spirits, declares that at that moment he not only enjoyed superior health and vivacity, but felt himself as capable of every mental and corporeal exertion as he did at 25, tho’ then in his 82d. year.

I believe there are no instances on record of persons having really injured their health, and endangered their lives by drinking water. On the contrary, it may be urged, with Dr. Armstrong, that,

“ Nothing like pure and simple element dilutes the food, or gives the chyle to soon to flow.”

Sandford's Remarks, p. 120 to 139, passim. 1799.

Charles Macklin, that veteran of the London stage, who died July 11, 1797, in his 99th year, used to say, that when he found himself ill, during the long course of his life, he always went to bed, took nothing but bread and water, and that, by this regimen, he was generally relieved from every slight indisposition.

METHOD OF PURIFYING PUTRID WATER.

If water be putrid, it may be rendered sweet by charcoal powder. This is one of the greatest and most beneficial discoveries of modern times, for which we are indebted to Mr. Lowiz of Petersburg. Water become putrid, may almost immediately be freed from it's nauseous taste, as well as it's bad smell, and be converted into good palatable liquor, by the following process.—Take some burnt charcoal, and reduce it to a fine powder. Mix about a table spoonful of this powder in a pint of water; stir it well, and suffer it to stand for a few minutes. Let it then run slowly through filtering paper into a glass, and it will be found quite transparent, without any bad taste or smell, and perfectly pure for drinking. Charcoal powder may be preserved a long time in small bottles well corked, and conveniently carried in travelling.

Liquids are intended by nature to quench thirst, or to dilute food; not to gratify the palate or to strengthen the stomach. All warm drinks weaken the stomach and body; they do not cleanse the bowels or purify the blood.



INFUSIONS, DECOCTIONS.

TEA.

The subjects of Great Britain are said to consume a greater quantity of this herb than the whole inhabitants of this quarter of the globe. As tea contains no nourishment for young or old, there must be bread and butter to eat along with it.

To a heavy, sluggish, phlegmatic man, a moderate use of tea may not prove pernicious; but where there is a debilitated stomach and an irritability of fibre, it never fails to do much hurt. With many it has the effect of preventing sleep.

Tea will induce a total change of constitution in the people of this country. Indeed it has gone a great way towards effecting that evil already. A debility, and consequent irritability of fibre, are become so common, that not only women, but even men, are affected with them. That class of diseases which we call nervous, has made almost a complete conquest of the one sex, and is making hasty strides towards vanquishing the other.

The mischief from tea arises chiefly from it's being substituted for solid food. The higher ranks use tea as a luxury, while the lower ranks make a diet of it.—*Dr. Buchan.*

It is probable, that people, particularly females, are fond of tea and coffee, because, for want of exercise, they have no natural or real thirst; and because they have been used to them from their infancy, but they do not know that the sedative effects of tea produces disorders of laxity and

debility. It's excessive use is known to abate courage, vigour and steadiness of mind. "The destructive effects of tea on the health of the common people of this country are well known to every man whose professional duty renders him acquainted with their diseases. A conviction of it's tendency to augment the miseries of the poor, by inducing them to waste that money on a noxious herb, with which they might purchase wholesome food, has often induced the writer to join in the wish of the benevolent Tissot, "That this famous leaf had never been introduced into Europe." The aroma, the heat, and the bitter of tea, like all other stimuli, tend so much to injure the tone of the stomach that it becomes unable to digest brown or second bread; which, instead of going through the digestive process runs into a state of fermentation, producing what is termed heart-burn, and flatulence. It was not therefore without just cause that the inhabitants of London complained, in the scarcity of 1800, that brown bread would not agree with them; but they did not advert to the real reason, which was, that they had injured their digestive faculties by improper food, and intemperance. The faintness and sinking which in a few hours succeed to the temporary irritation produced by tea, too frequently lead the lower ranks to the use of ardent spirits, in order to alleviate the uneasy sense of depression. The thirst and feverishness consequent on dram-drinking, again call for the diluent powers of tea; and thus do such unthinking victims pursue this fatal round of stimulating the vital powers into inordinate action, till the fatal course terminates in palsy, dropsy, or general imbecility; from which, after lingering a few months in a workhouse, they drop unheeded into the grave. "I have



known," says Dr. Lettson, in his Natural History of the Tea-tree, &c., several miserable families, thus infatuated, throw away their earnings on this fashionable herb, their emaciated children labouring under various ailments depending on indigestion, debility, and relaxation: some at length have been so enfeebled, that their limbs have become distorted, their countenances pale and a marasmus [consumption] has closed the tragedy.

These effects are not so much to be attributed to the peculiar properties of this costly vegetable, as to the want of proper food, which the expense of the former deprived these people from procuring. I knew a family of this stamp, consisting of a mother and several children, whose fondness for tea was so great and their earnings so small, that three times a day, as often as their meals, they regularly sent for tea and sugar, with a morsel of bread and butter, to support nature; by which practice they daily grew more enfeebled; emaciated habits and weak constitutions characterized this distressed family, till some of the children were removed from this baneful nursery, who afterwards acquired tolerable health." If such then are the effects of an immoderate use of tea, every degree has it's proportionate insalubrious effect.

The obvious alteration in the constitutions of the inhabitants of this country, principally indicated by the increase of what are termed nervous complaints, has, by many accurate observers, been attributed to the prevailing use of this beverage among all ranks of people. The pernicious habit of swallowing ardent spirits has no doubt some share in producing these disorders. About fifty years ago, however, before the present high duties were imposed on malt spirits, much larger quantities of

them were drank than at present ; but since that period these disorders have encreased to an alarming degree. Their origin must therefore be sought elsewhere. And in the general habits of living in this country no other apparent alteration has taken place, to which they can be referred. With the greatest share of truth, they may, perhaps, be attributed to their joint operation. As the sedative properties of tea produce an inclination for spirits, so by weakening the nerves, their irritating impressions become more deleterious.

Of nervous diseases, Palsy may be considered as the aggregate representative, or type. This monster appears of late years to have swallowed up all minor degrees of the evils of which it is the chief. The shaking head, and the trembling hand, formerly the concomitants of advanced life, are rarely now to be met with. But in their stead the eyes are shocked, in every street, by the appearance of some unhappy being, exhibiting an example of the torture of Mezentius, *dragging along a living body, joined to a dead one*. If to these be added the numbers who do not expose their infirmities to public view, the giant strides of this deplorable malady, the more dreadful, as it does not instantly destroy it's victim, but leaves him a wretched burden to himself and to others, must indeed appal us.

The following is a statement of the numbers dying annually of palsy within the bills of mortality, in different periods, copied from Black's "Tables of Mortality," 8vo. Dilly, 1789. Since that time it is taken from the annual bills of mortality.

From the year 1701 to 1717 died of the palsy,	332
1717 - 1732	550
1732 - 1747	621
1747 - 1762	1021
1762 - 1777	1020
1777 - 1792	1062

At the beginning of the eighteenth century, tea was but little known in this country. At that time the annual import did not exceed a hundred thousand pounds. Nor can it be considered as a general article of diet till after the middle of it, when the quantity annually imported exceeded two millions of pounds. In the year 1777, the importation was upwards of sixteen millions; and, from the most authentic documents, the present annual importation is supposed not to be less than thirty millions! Can it be doubted that a new article of diet could be adopted to such an astonishing extent, without producing some adequate change on the constitutions of the consumers of it? In a period of thirty years, reckoning from 1717, when the use of tea was yet uncommon, palsy increased nearly in the ratio of two to one. In the next fifteen years, when tea-drinking was generally diffused, especially in the capital, the ratio of this disease augments as three to one, and continues nearly the same during forty-five succeeding years: and, if the average of the last seven years from 1792 be taken, palsy appears again on the increase, in a proportion of about four to one. It would not be a difficult task to prove that the use of this infatuating beverage has produced a remarkable change, not only in the health, but in the moral as well as political character of the inhabitants of this country. In no point of view is tea to be considered as a nec-



essary of life. All it's nutritive qualities remain to be extracted from it's concomitants, sugar, milk, butter, and bread. To any proposal to abstain from tea, even when it's use is evidently prejudicial to health, the immediate objection is, what can be substituted in it's stead? This question may be readily answered by another; what did our ancestors subsist on, before tea was heard of? The writer is acquainted with a lady, equally respectable for her age and her virtues, who distinctly recollects the introduction of tea, as a novelty, into her father's family; in Kent, the leaves were then boiled in a kettle, and the liquor drank as an afternoon's regale. At that time the general breakfast in the neighbourhood was frumenty, and something of a similar kind was used in other parts of the country.—*Practical Economy, Callow, 1801.*

SUBSTITUTES FOR FOREIGN TEAS.

As the tea-tree grows principally between the 30th and 40th degrees of latitude, it might be easily raised in Europe: indeed, from the success with which plantations of this shrub have lately been established by a society of nuns in Franconia, near Würzburg, there is great reason to believe, that it would also prosper in the southern counties of Britain, if proper attention, were paid, till it became habituated to our climate. But there are many indigenous vegetables which might be substituted with great advantage; such are Sage, Balm, Peppermint, and similar spicy plants; the flowers of the Sweet Woodroof; those of the Burnet, or Pimpernel Rose; the leaves of Peach and Almond trees; the young and tender leaves of Bilberry, and Common Raspberry; and, lastly, the blossoms;



of the Black-thorn, or Sloe tree; most of which, when carefully gathered and dried in the shade (especially if they be managed like Indian tea leaves, by drying on an iron plate over a fire), can with difficulty be distinguished from the foreign teas, and are of superior flavour and salubrity.—*Dr. Willich's Domestic Ency.*

The Dutch dry and prepare red sage (which is a variety of *Salvia officinalis*, or Common Large Sage), like other teas, and carry it to the Indies as a very precious article. They there find a good market for it, the Chinese preferring it to the best of their Indian tea; and for every pound of sage they give in exchange four pounds of their tea, the high price of which is well known in Europe.

A SUBSTITUTE FOR TEA AND COFFEE.

Boil in a double bottomed sauce-pan, a pint of milk, for fifteen minutes, stirring it often, beat an egg and put it in, also a small proportion of Churchman's plain Chocolate, or a little pounded cinnamon. Pour it from one bason into another to cool. It may be eaten with slices of bread.

The dried and roasted roots of *Succory*, or *Wild Endive* have, of late, been much used in Germany, and other parts of the continent, as a substitute for Coffee.

A PALATABLE DRINK

may be made by mixing a spoonful of vinegar, and a spoonful of sugar with a quart of spring water. A little rosemary might be added.

COFFEE,

to be good, must either be ground to an almost impalpable powder, or pounded in the Turkish manner,



in an iron mortar, with a heavy pestle. The Turks first put the coffee dry into the coffee-pot, and set it over a very slow fire, or embers, till it be warm, and sends forth a fragrant smell, shaking it often; then from another pot they pour on it boiling water (or rather water in which the grounds of the last made coffee had been boiled, and set to become clear); they then hold it a little longer over the fire, till there be on it's top a white froth like cream, but it must not boil, but only rise gently; it is then poured backwards and forwards two or three times, from one pot into another, and it soon becomes clear; they, however often drink it quite thick. Some put in a spoonful of cold water to make it clear sooner, or lay a cloth dipt in cold water on the top of the pot. The reason our West India coffee is not so good as the Yemen coffee, is, that on account of the climate it is never suffered to hang on the trees till it be perfectly ripe; and in the voyage it acquires a taste from the bad air in the hold of the ship. This may be remedied in Italy, by exposing it to the sun two or three months; with us, hot water should be poured upon it, and suffered to stand till it be cold; then it must be washed with other cold water, and, lastly, dried in an oven. Thus prepared, it will be nearly as good as the best Turkey coffee. It should be roasted in an open earthen or iron pan, and the slower it is roasted the better. As often as it crackles it must be taken off the fire. The Turks often roast it in a baker's oven while it is heating.—*Eton's Survey of the Turkish Empire.*

MILK

is not a simple substance; it is a mixture of three; namely, coagulable matter, expressed oil, and sugar. Coagulable matter is that which will unite, and become solid, leaving the rest thinner and more fluid, viz. the curd; and expressed oil is such as can be procured from any substance by pressing, as oil of almonds, olives, &c.: by expressed oil in milk, we understand the cream.

This coagulable matter, in milk, is fluid indeed when taken, but there is a juice peculiar to the stomach, very different from an acid, which renders it solid. We find the stomach of a calf, tho' cleared of every thing that is acid, to have this property. An infusion of a few grains of the inner coat will coagulate or curdle several quarts of milk.

That the expressed oil, which is the cream, helps digestion, is evident, from the indigestible nature of milk when it is skimmed, the curd being harder. The cream and the sugar being mixed with the curd, separate the different parts of it more from each other, so that the natural fluid of the stomach will penetrate the easier, and fermentation go on better. And as to sugar it is favourable to the operation of fermentation, and of course will facilitate digestion.—*Anonymous*.

The most wholesome way of using milk is undoubtedly in it's raw state, after it has come from the cow and stood two hours, eaten with untoasted good bread; but it enters into a variety of food, which it is not necessary to enumerate, being well known to

every notable housewife. A simple method or two of using it may be particularized.

MILK WITH WHEAT FLOUR.

To two third parts of new milk, add one third of spring water, set it on a clear fire. In the mean while make some batter of wheat flour and milk and water. When the milk is ready to boil, put in the thickening, and stir it a short time. When it is again just ready to boil, take it off and add bread and salt to it, letting it stand in basons to cool, without being stirred.

If this dish be desired richer, an egg to each pint may be beaten with the thickening, and sugar added.

MILK WITH OATMEAL.

Take two thirds of milk and one part of water, to which add what quantity of oatmeal you chuse, taking care not to put too much, so as to make it thick. Set it on a clear brisk fire, and when it begins to boil take it off, and continue to pass it from one vessel to another eight or ten times, to cause the fine parts of the oatmeal to incorporate with the milk. Then set it again on the fire, and as soon as it is ready to boil take it off. After standing a little, the bran of the meal will sink to the bottom and may be separated. Bread and salt may then be added, and left to cool; or eggs, by beating them in a little milk and water in which the meal also may be put, as in the former milk and flour.

MILK WITH BREAD,

or milk with hasty pudding, is so common as a breakfast in the North of England, that to children, they



universally supplant the use of tea, while in the south, they are scarcely heard of. In the former district, the children are well known to be much stouter and more healthy. In some parts of the latter, however, money cannot always procure milk. The wealthy farmer's wife alledges, to the poor man who is wearing out his body in her service, (or which amounts to the same, in the service of her husband) that to let his wife have a quart of milk a day for the children would spoil her cheese. But in what manner the difference of a few quarts from the milk of six, a dozen, or a score of cows, can be so accurately calculated, when those very cows vary in producing milk, much more than that quantity every day, is an insolvable paradox. On the score of interest, she will allow that by selling the milk, at the customary price, she could make more profit than in any other way.

At what hidden crevice of the dispositions then of such farmers or their wives does humanity enter? Why, at none. Did the least spark of virtue exist in such people they would put themselves even to some slight inconvenience to benefit unfortunate beings, born like themselves to live. Unfortunate indeed, if on no other account than being compelled, by necessity, to be subject to such treatment. In summer, cannot whey be had at a reasonable price? and, in winter, skimmed milk? No; even these are denied. It is thought more necessary to feed pigs than poor men's wives or their children.

FRUMENTY

is composed of wheat, divested of it's external husk, as described page 11, under the article *Boiled Grain* and mixed with milk, with the addition of sugar, spice, and fruit, at pleasure.

SKIRRET MILK

is made by boiling the roots tender, and the pulp being strained out, put into cream, or new milk boiled with three or four yolks of eggs, sugar, large mace, or other spice. In this manner may be composed any other root milk. Skirrets, of all the root kind least occasion flatulency. This root was so valued by the Emperor Tiberius, that he accepted them for tribute.

CORSTORPHINE CREAM,

much esteemed in the vicinity of Edinburgh, is a peculiar form of curd, slightly acidulated. It receives it's name from the village of Corstorphine, in the country of Mid Lothian, for which that place has been famous for centuries past. The most approved process for making it is very simple and is as follows. The milk when fresh drawn is put into a barrel or other vessel provided with a perforation and peg, and is subjected to a certain degree of heat, generally by being immersed or placed in warm water. This accelerates the progress of fermentation. It is there suffered to remain till the milk coagulates, and the watery part has subsided, which is drawn off by withdrawing the peg in the lower part of the vessel. What remains is put into the plunge churn, and after being agitated for some time, is fit for use.

CURDS OR FLITTINGS,

made in the following manner, are eaten three or four days in the week, in Northumberland, both for dinner and supper. Take whey just strained from the cheese-curd, (whey of new milk is preferable) and put a panful over the fire, till it has acquired a brisk



heat; then add to it some very old butter-milk. Shortly white flakes will arise in the pan, which will collect into lumps of a fine white, mellow, bland-tasted substance. This curd may be eaten with milk, ale and sugar, or wine and sugar, seasoned with nutmeg and ginger, as the parties can afford. With this, and such like milk diet, the labourers in the North of England continue strong, healthy, and well looking, and do twice as much work as the labourers in the counties of Salop, Hereford, and Worcester, who distend their stomachs so much with capacious potions of cyder and loads of solid food as to have rendered themselves the greatest eaters and drinkers in the island.

ALE-POSSET

is also much used in the north, which is thus made. Take a quart of milk and warm it over the fire, and pour it on a pennyworth of good bread. Warm also half a pint of ale, which should not be too stale, least it cause the milk to curdle. Add the ale, by little and little, to the milk. Sweeten the whole with brown sugar, and season it with ginger, grated in. The expense of this posset is trifling, and it will make a breakfast for two working men.

BUTTER.

Since milk is made into butter and cheese, and since the former contains it's oily, and the latter it mucilaginous and terrestrial parts, it is evident that these two, especially with the addition of bread and water, must afford very valuable and universal nourishment, fit for persons of all ages and constitutions. The newer the butter, the more grateful it is to the stomach, and more conducive to health; but when kept long, it grows fetid and rancid. The too great and too constant use of it, however, by relaxing the fibres of the stomach, weakens it's tone, and excites nausea.—

—*Dr. Hoffman on Aliments.*

Butter, tho' a good article of diet, may be used too freely. To weak stomachs it is hurtful, even in small quantities, and when used freely, it proves prejudicial to the strongest. Butter, like other oily things, has a constant tendency to turn rancid. This process, by the heat of the stomach, is greatly accelerated. Oils of every kind are with difficulty mixed with watery fluids. They are of a relaxing quality, and tend not only to impede the action of digestion, and weaken the stomach, but to induce a debility of the solids, which paves the way to many maladies.

Children, without exception, are disposed to diseases arising from relaxation. They are frequently troubled with gross humours. As children abound with moisture, bread alone is better for them than with butter. Women who lead sedentary lives



very commonly eat teabread, which is so contrived as to suck up butter like a sponge. It is no wonder they complain of indigestion. Dr. Fothergill is of opinion that butter produces the nervous or sick headache, so common among women of this country, for it is generally cured by an emetic.

Butter is rather a gross food, and fitter for the athletic and laborious, than the sedentary and delicate. It is less hurtful when eaten fresh than salted. Bread made with butter is almost indigestible; pastries on this account are little better than poison.—*Buchan on Diet.*

“In modern times, the art of making, improving, and preserving butter, has kept pace with the unwholesome custom of eating this oil, from an early period of infancy. Thus, we have reason to think that many diseases of children, especially those of a scrophulous nature are wantonly induced, or at least rendered more malignant. To render butter less hurtful it should be perfectly fresh, and free from rancidity; which it easily acquires, if the butter-milk has not been completely separated. Fried or burnt butter, is still more detrimental to health, as it is thus converted into an acrid, and even caustic fluid, which cannot fail to disorder the stomach, to render digestion difficult and painful, to excite rancid belchings, and, ultimately, to taint all the fluids with a peculiar acrimony. Hence, hot toast with butter, should never be eaten by persons who value their health. Nor can we recommend the prevailing custom of melting butter with flour and water; for, in this manner, it forms a compound more indigestible than sweet butter is in it's natural state.—*Domestic Encyclopædia.*

The Professor Beckman, in his “History of Inventions,” having collected in chronological order, ev-

ery thing which he could find in the works of the ancients respecting butter, concludes, that it is not a Grecian, and much less a Roman invention, but that the Greeks were made acquainted with it by the Scythians, the Thracians and the Phrygians; the Romans by the people of Germany. He is likewise decidedly of opinion, that when those two polished nations had learned the art of making it, they used it not as food, but only as an ointment, or sometimes as a medicine. "We never find it," says he "mentioned by Galen and others, as a food, tho' they have spoken of it as applicable to other purposes. No notice is taken of it by Apicus; nor is there any thing said of it in that respect by the authors who treat of agriculture, tho' they have given us very particular information concerning milk, cheese, and oil."

The butter which is mostly used in Constantinople, comes from the Crimea and Ruban. They do not salt it, but melt it in large copper pans over a very slow fire, and skim off what rises; it will then preserve sweet a long time, if the butter was fresh when it was melted. We preserve butter mostly by salting. I have had butter, which when fresh was melted and skimmed in the Tartar manner, and then salted in our manner, which kept two years, good, and fine tasted. Washing does not so effectually free butter from the curd and butter-milk, which is necessary to be done, in order to preserve it, as boiling or melting; when salt is added, we certainly have the best process for preserving butter. The melting or boiling, if done with care, does not discolour or injure the taste.—*Eton's Survey of the Turkish Empire.*

In the management of Cream intended to be churned into Butter, cleanliness, on the part of the



dairy maid is indispensibly necessary; yet it often happens (especially where only one cow is kept) that the greatest care of the vessel where it is deposited till a sufficient quantity be collected for churning, is insufficient to preserve it sweet. In order to obviate this unpleasant rancidity in the butter and milk, put the size of an hazle nut of nitre into the cream-mug, while gathering the quantity intended for the churn.

A few spoonfuls of vinegar accelerates the process of churning, without imparting any thing unpleasant to the taste of the Butter-milk.

CHEESE,

as a diet, is injurious to health. It should be eaten as a desert only.

Butter, joined with cheese, is very nourishing, but cheese should be neither too new nor too old. If too new, it loads the stomach, and binds the belly; if too old, it increases the acrimony and impurity of the humours, and it has a poignant taste and fetid smell.—*Dr. Hoffman on Aliments.*

Cheese generally possesses a costive quality; but it differs in proportion to the quantity of oil in the coagulable part. The more rich or oily parts there are in cheese, the more nutritive and soluble it is; that is, the readier it will digest; the leaner the cheese, the more difficult it is of digestion. Cheese, as food, is nourishing and substantial for healthy robust working people. No men are able to hold out in hard labour with those who live on good wheaten bread and *rich* cheese. “Let four men,” says the respect-



able Thomas Tryon, "eat bread and good cheese, with pudding, milk-meats, and raw salads, seasoned with vinegar, salt, and good oil, and have for their drink, good, sound, well prepared beer or ale, not too strong; and let four others of equal size and strength, live on the varieties of flesh, with bread, and the same liquor; put both parties to the same hard labour, and in six months' time it will be found that the former assisted by their plain wholesome food, will have much the advantage of the latter, outdoing them almost beyond belief." The reason of which, Mr. Tryon insists, is owing to the gross and phlegmatic humours engendered by flesh, while bread, cheese, puddings, pottages and herbs, are clean, sound, and free from impurities; and, in consequence, produce better nourishment, finer blood, and pure, brisk, sparkling spirits, which impart strength and vigour to the body.

The Laplanders use the juice of common Sorrel, (*Rumex acetosa*, Lin.) as rennet for their milk.

People of delicate constitutions should eat cheese sparingly; i. e. a little cheese and much bread, so that the cheese may serve only to relish the bread.

EGGS,

if new laid, and not boiled hard, afford a very strong nutriment. The yolk contains many unctuous, fat, and sulphureous parts; the white, on the other hand, consists of moist, balsamic parts, like those of the serum. Eggs are of all substances most proper in a weak habit of body, through loss of blood, or the:

wastings of a fever, which require immediate and substantial nourishment. They are very beneficial to old men, who stand in need of good nutriment, and such as is easy of digestion — *Dr. Hoffman on Aliments.*

BOILED. Eggs ought to be used when perfectly fresh, and the best way of preparing them for the table, perhaps, is to coagulate them by pouring boiling water on them and letting them remain for about ten minutes. Or they may be put into a pan when the water is cold, and the instant it boils to be taken off the fire and the eggs suffered to remain afterwards for five minutes.

To ascertain whether eggs have been well preserved it is only necessary to examine their transparency by a candle, and to reject such as appear of a turbid colour. When

POACHED, and eaten with bread, butter, and vinegar, they are preferred by many. The most exceptionable way is when

FRIED with butter. They are very palatable done in this manner, but to some are very difficult of digestion.

EGGS WITH SORREL AND PARSLEY.

Eggs, and a little sorrel and parsley mixed and stirred in a pan over the fire, with butter. Some butter and vinegar may be added before this dish be put on the table.

EGGS WITH ALE.

Take one or two eggs, beaten in a little water. Take also a pint of good ale or beer, sweetened with sugar, put it on the fire, making it boiling hot; then brew them together from one vessel into another, and rich liquor will be produced.

EGGS WITH MILK.

Take three eggs, and beat them up with half a spoonful of flour, a bit of sugar, about the size of a walnut, a little salt, and three quarters of a pint of milk; put them in the dish you mean to serve them in, and place it in a gentle heat for a quarter of an hour.

TO DRESS EGGS WITH BREAD.

Put half a handful of crumbs of bread into a stew-pan, with a gill of cream, and a little salt, pepper, and grated nutmeg. When the bread has imbibed all the cream, break in six eggs, and make an omelet.

OF PRESERVING EGGS.

The best methods of preserving eggs seems to be that of covering them with a cheap varnish, by which the air will be prevented from penetrating their pores; or of suspending them in a running stream of water, by means of a net.

THE GLOUCESTER JELLY.

Take Pearl Barley, Sago, Rice, Eryngo-root, of each one ounce. Boil these ingredients in six pints of water till reduced to three. Then strain the liquor, and add to it a pint of new milk, with sugar to your taste.



WINE AND SPIRITS.

The juice of the ripe grape is a nutritive and agreeable food, consisting chiefly of sugar and mucilage. The chemical process of fermentation converts this sugar into spirit; converts food into poison! and it has thus become the curse of the christian world, producing more than half of our chronical diseases; which Mahomet observed, and forbade the use of to his disciples. The Arabians invented distillation; and thus by obtaining the spirit of fermented liquors in a less diluted state, added to it's destructive quality. A Theory of Diabætes and Dropsy, produced by drinking fermented or spirituous liquors, is explained in a Treatise on the inverted motions of the lymphatic system, published by Dr. Darwin.—*Bot. Garden*, pt. ii, pa. 119.

WINES

over heat, without procuring strength, and cannot be converted into good blood, flesh, or bone. They are useful as medical potions to comfort those who are sick and have weak stomachs; but if drank constantly by healthy people, the tongue loses it's delicacy of taste, and rejects water and mild simple food; the stomach grows cold and loses it's natural vigour, and man, under the false idea of giving warmth to his stomach, gains by degrees, a passion for drinking, which leads him to habitual ebriety. Dr Saund-
 er's asserts, in his "Treatise on Diseases of the Liv-



er," 8vo. Robinsons, that in many cases, the abuse of vinous spirit disposes to jaundice of the most unfavourable kind, because generally accompanied with a diseased structure of the liver; and that the stomachs of persons who have died under the habit of drinking drams have, on dissection, generally been found in a flabby and inelastic state, capable of secreting only diseased fluids. This loss of tone in the stomach, is often accompanied by tremors, heat, and a propensity to palsy, loss of memory," &c. He also remarks, that "when diminished secretion of bile is attended by indigestion, flatulent eructations, &c. the quantity of food taken at one meal should be moderate, and that *water* should be the *only* liquid drank with such meals, as more effectually promoting digestion, than fermented liquors of any kind."

Dr. Maclurg, treating of spirits, bitters, &c. in his "Experiments on the Human Bile," 8vo. Cadell, says, "By the short-lived force they occasion, they have obtained the name of strengtheners, and may indeed answer a temporary purpose, but their habitual use will certainly prove pernicious. Unhappily," continues he, "they are resorted to for present relief, by those who have most reason to dread their debilitating effects; such persons would certainly do well in exchanging, by cautious degrees, all the varieties of spirituous liquors, for *simple cold water*."

Wines prepared with ripe fruits, as currants, raspberries, &c. would be a pleasant exchange for the more potent wines of Portugal, &c. tho' at first they commonly disagree with persons who have been long accustomed to take the foreign wines, their stomachs having been so habituated to the latter, that they cannot bear any thing of an opposite quality,



without being affected with heart burn, flatulency, and cholic: a little time and management would subdue such effects, and the state of the stomach and it's appendages, would be greatly benefited by the gradual exchange. That conviction does not always result from serious and invincible argument, is too evident. A little irony has in some instances succeeded more effectually. The following is an interesting instance. "It happened," says Mr. Sandford, "that soon after a heavy tax had been levied on foreign wines, I was dining with a lady, who, as she poured out a glass of port wine for her child, about five years old, then sitting at the table, wished, for the child's sake as well as for her own, that the duty had been laid on something else. I observed to her, that tho' it was probable she had been too long in the habit of drinking wine to relinquish it without great care, and proper management, yet, that she might easily substitute something for the child which would be less expensive as well as answer all the purposes of wine; and I assured her that a tea spoonful or two of spirit of lavender, mixed with a little water, would have a similar effect; and if that was not found sufficient to produce exhilarating effects, she might add a few drops of laudanum to each glass!" The lady told me, "she was surprised to hear me recommend *medicine* to a child in perfect health and high spirits." I replied that she was in the daily habit of giving her child just such a medicine, and which could not fail to have as pernicious an effect as what I had proposed, and perhaps worse, because the child becoming by degrees habituated to wine, it's effect as a cordial would soon be lost, if illness should ever occasion her to have recourse to it; besides which, it must be re-



marked, that the practice was no other than an early and very natural introduction to stronger liquors. This has been observed by Dr. A. Fothergill, in his "Essay on the Abuse of Spirituous Liquors," who relates the case of a young man, "who having rapidly run through the scale of intemperance, beginning with malt liquors, then wine and water, next brandy and water, with sherry taken at his meals, as freely as small beer; then brandy alone, and, at last, highly rectified spirit of wine. But before he had emptied the third bottle, he died of extreme old age, at the early period of *twenty-eight*."

The lady took no further notice at this time, but I had soon after the satisfaction of being informed, that she had gradually left off the practice of giving her child wine."

"It is true that the excitability, when exhausted in part, by the application of a temporary stimulus, is capable of being repaired and renovated in some degree by the recruiting powers of sleep, rest, &c. and little injury will seem to have been sustained by persons who have applied stimulants to their constitutions pretty liberally: yet to suppose that no injury has been thus received, and that frequent application of excessive stimulants, daily repeated, will, in the end, and after some years, produce no ill effect, does not appear to be warranted either by reason or by observation. Time will shew the falacy of such a conclusion, tho' in some cases it's ravages may be more slow than in others; but in *all*, *some* effect must be produced, so as to bring the person nearer and nearer, after every repetition, to the extreme degree of excitability, or that point where inexcitability commences, and death ensues. Thus, however renovated after each excess, this property may be, still on the



whole, some deduction has certainly been made from it; and the greater or more frequent that deduction, the greater must be the injury sustained by the constitution on the whole. Nature, by the means before mentioned, may possibly, in some measure, recruit her exhausted powers; but still these powers are, by the repeated violence thus offered them, prematurely weakened and diminished. Now, if we apply this reasoning to the case of dram drinkers, we shall then perceive, that let the real age of the person be what it may, he will be so far advanced in his progress towards inirritability, inexcitability, or the point beyond which every stimulant will cease to produce effect, as to be, comparatively, very old, and consequently, in the same proportion, to be near the termination of his life." ["Practical Remarks on the Medicinal Effects of Wine and Spirits," 12mo. Cadell and Davies.] This doctrine is ingeniously illustrated by the following figurative extract from Jackson's "Four Ages," &c. "Know, stranger, that before thy heart began to beat, the number of it's pulsations were determined: no art or earthly power can add to the sum, but it depends on thyself, whether they shall be exhausted sooner or later; of these a certain number, is daily expended: if, instead of this allowance, thou wilt *force* thy heart to beat twice as many, altho' thy destiny be not changed, thou livest but half thy time. By a life of reason and temperance the last stroke is long delayed, but by wasting thy spirits in folly and riot, the appointed number is quickly accomplished." "It may not be useless to inform such persons as are in the habit of taking wines, strong perry, or cyder, that (if they fortunately be inclined to lower the strength of the liquor by mixing

water with it) if the water be *first* poured into the glass, and the wine immediately after, most of the fixed air contained in such wines, &c. will be absorbed by the water, and the mixture will not have that flat and mawkish taste which it generally has, particularly if the wine be first poured into the empty glass, where great part of the fixed air would necessarily escape.

A very pleasant liquor, resembling claret in flavour, may be obtained by adding, in a similar way, about one part of *water impregnated with fixed air*, to two parts of port wine; and the composition would be still better if mixed in a decanter, into which the wine should be first poured, in order to absorb all the fixed air contained in the water."—*Sandford*.

BIRCH WINE.

About the beginning of March, when the buds begin to be proud and turgid, and before they expand into leaves, with a chissel and a mallet cut a slit almost as deep as the very pith, under some bough or branch of a well spreading Birch; cut it oblique, and not long ways, (as a good surgeon would make his orifice in a vein) inserting a small stone or chip, to keep the lips of the wound a little open. Fasten therefore a bottle, or some such convenient vessel appendant; this produces the effect as well as perforation, or tapping: out of the aperture will exil a limpid and clear water, retaining an obscure smack both of the taste and odour of the tree. To prevent this juice from fermenting, till a sufficient quantity be procured, the bottles in which it is collected, ought to be immediately stopped.

To every gallon of Birch-water put a quart of honey well stirred together; then boil it almost an hour with a few cloves and a little lemon-peel, keeping



well skimmed; when it is sufficiently boiled, and become cold, add to it three or four spoonfuls of good ale to make it work, which it will do like new ale; and when the yeast begins to settle, bottle it up as you do any other vinous liquors. It will, in a competent time, become a most brisk and spirituous drink. This wine may, if you please, be made as successfully with sugar, instead of honey, one pound to each gallon of water; or you may dulcify it with raisins, and compose a raisin wine of it. I know not whether the quantity of the sweet ingredients might not be somewhat reduced, and the operation improved. The author of the "*Vinetum Brit.*" boils it but a quarter, or half an hour, then setting it to cool adds a very little yeast to ferment and clear it; and so barrels it with a small proportion of cinnamon, and mace bruised; about half an ounce of both to ten gallons, closely stopped, bottling it a month after. Care must be taken to set the bottles in a very cool place, to preserve them from flying; the wine is rather for present drinking than of long duration, unless the refrigeratory be extraordinarily cold. Besides this, Beech, Alder, Ash, Sycamore, Elder, &c. should be attempted for liquors: thus Crabs, even our very brambles, may possibly yield us medical and useful wines. The Poplar was heretofore esteemed more Physical than the Birch.—*Hunter's Evelyn's Silva*. b. 1. c. 18, sec. 9.

CLARY WINE.

Wine of the Garden clary, *Salvia sclarea*, Lin. To five gallons of cold water, put four pounds of Lisbon sugar and the whites of three eggs well beaten; let these boil gently together for about an hour, then

skim the liquor, and when it is almost cold, add of the small Clary leaves and the tops in blossom, one peck, and half a pint of ale yeast. Put the whole into a vessel, and stir it twice a day, till it has done working. It must then be stopped close for eight weeks. At the expiration of that time draw it off into a clean vessel, adding a pint and a half of good brandy. In two months it may be bottled.

COWSLIP WINE.

To every gallon of water put three pounds of lump sugar, which are to be heated on the fire till just ready to boil; then put two or three whites of eggs, well beaten, into the water, stirring it well. Let it boil three quarters of an hour; then let it stand till blood warm, and add to each gallon, a gallon of the flowers of cowslips, (or rather the upper part of the petals separated from the tubular part, cut off with scissors, and measured in their fresh, light state) and to each gallon two pared lemons with the peelings. A proper quantity of yeast should be admixed, and the whole suffered to ferment for two days, stirring it three or four times each day. It should then be well strained and put into a cask. When the fermentation ceases, the cask should be closely stopped; and, when clear, bottled.

CURRENT WINE

is an excellent drink during the heat of summer, especially with the addition of water. It may be made in the following manner. Gather the currants when they are perfectly ripe; strip them from the stems, break them into a tub, and when the juice is pressed out, measure it, to which add an equal proportion of water, and to each gallon, three pounds of soft



sugar; when the sugar is dissolved the mixture may be barrelled. The juice should not be left to stand a night, as the fermentation during that time would take place, and it should not till the ingredients be put together. Currants and raspberries mixed make a more pleasant wine than currants alone, and there is also a saving in regard to sugar, as the extreme acidity of the currants is corrected by the sweetness of the raspberries.

GINGER WINE.

To six gallons of water add eighteen pounds of brown sugar, three and a half ounces of ginger, two pennyworth of stick liquorice sliced, three lemons, and three Seville oranges pared and cut into small pieces. Let them boil slowly together for an hour, skimming it well. Shake a pint of brandy round the inside of your cask, and put into it a toast, with a pint of good ale yeast spread over it. When these ingredients have become new-milk warm, barrel them, putting in the rinds of the lemons and oranges. When the fermentation has ceased, let the cask be close corked and stand a year before it be bottled. Be cautious in chusing the largest and whitest races of ginger, and use them whole. If you cannot obtain fruit, a quart of elder syrup may supply it's place.

ANOTHER.

To five gallons of water add twelve pounds of sugar. Let them boil half an hour, skimming the liquor all the time. Then take the rind of ten lemons, and five ounces of ginger, bruised. Boil them in a quart of the sugar and water, till tender, and add them to the rest. When cold, barrel it with five pounds of chop-



ped raisins, one ounce of isinglass and half a pint off fresh barm. When done fermenting, stop it close. In three months it may be bottled with two table spoonsful of brandy in each bottle. The juice of three lemons may be added, but in this case, half a pound of sugar will be required in addition to each gallon.

WINE OF GOOSEBERRIES

may be made with considerable advantage, as it requires only one oz. of sugar to one pound of the expressed juice. After standing several years in bottles well corked, it becomes equal in quality to Muscadine or other sweet Italian wines. Bryant says, that if the flower buds of this shrub be added to a cask of any other flavourless wine they will impart to it the taste of genuine Muscadine.

WINE OF MILK.

Take any quantity of milk, of a day old only, add to it a sixth part of water, and pour the mixture into a *wooden vessel*, then add, as a ferment, one eighth part of the sourest milk, cover the vessel with a thick cloth, and let it stand in a place of moderate warmth for twenty four hours, when a thick substance will be found on the top, and the milk sour. Then, with some convenient instrument, beat the whole carefully together till it appear smooth and of one substance. Let it stand again for 24 hours; then stir and mix it as before. If it have altered to a sweetish sour it is done. Put as much sugar to it as you choose. It may be put in jars, closely covered, for use. A little brandy will cause it to keep long. Before it be taken out for use, it should be stirred with a spoon.

Equal quantities of this wine of milk and raisin wine,



produce a delicious beverage, yielding about one third part of nutriment. The solid parts of the milk combined by this process, is completely hindered from depositing the hard substance of cheese in the digestive operation, therefore is easily turned to chyle.

WINE OF QUINCES

is made by mixing one quart of the juice of quinces with one pound of sugar, and then suffered to ferment. But by adding to the same quantity, one pint of the best French brandy, and four ounces of sugar, a celebrated liquor is prepared on the continent, and which is greatly prized as a cordial and stomachic when taken in the small quantity of two or three spoonsful.

RASPBERRY WINE.

Gather the raspberries when fully ripe and quite dry. To every quart of raspberries, as collected, let one pound of sugar be immediately added, and well crushed and mixed together. Some attention to this part of the process is necessary, as the rasps, would otherwise lose their flavour in two hours. When the quantity you intend to make is obtained, to every quart of rasps add two pounds more of sugar, and one gallon of cold water. Let the whole ferment for three days, stirring it five or six times each day. When barrelled, put in two whole eggs, taking care that they be not broken. Close it well up and let it stand three months. Then bottle it off, putting rosin upon the corks.

RAISIN WINE.

Let one cwt. of raisins be deprived of their stalks, chopped, and put into a wide, but not too deep a vessel. Two thirds, or fourteen gallons of water, are to



be added, and the whole suffered to stand for fifteen days, being carefully stirred once every day. At the end of that period, the raisins must be strained, pressed, and the liquor obtained from them, poured into another vessel. The remaining third part, or seven gallons of water, should next be added to the fruit, thus pressed, and likewise stand for the space of one week. The liquor is then again to be strained, and the two *runnings* are to be poured into a barrel, capable of containing twenty-one gallons, together with a quart of brandy. In order to colour the wine, three quarters of a pound of refined sugar must be set upon the fire, and burnt with a little of the liquor, which ought to be added to the whole; and as soon as the fermentation ceases, the barrel may be closed, and suffered to stand till it's contents be ready for bottling.

SPIRITUOUS LIQUORS.

Vegetation has united in corn, by means of air and water, spirituous and earthly elements; which, combined, form a sweet and nourishing substance; if this intimate junction be destroyed or resolved by fermentation, the spirituous part is separated from the earthly, which is then deprived of it's body, and is no longer a sweet nourishing substance; but is fiery, and destroys like fire. A few hundred years ago brandy was not known among us. At first, it was considered as physic, and did not gain any degree of general request till the close of the 16th century. Our forefathers did not use brandy or any spirituous liquor; and they were much more healthy and strong than



the present generation. It has been observed in all countries, in England, Scotland, Sweden, North America, and Germany, that in proportion to the quantity of spirituous liquors consumed, were the evils which health, strength, reason, virtue, industry, prosperity, domestic felicity, the education of children humanity, and the life of man had to encounter.

Sydenham, with great justice and propriety, exclaims, "Would to God brandy were totally abstained from, or used only on occasions to support nature, not to destroy it; or that the internal use of it were prohibited and left entirely to surgeons for bathing ulcers and burns. "On comparing my own observations, says Dr. Willan, (in his Reports on the Diseases of London,) with the bills of mortality, I am convinced, that considerably more than one-eighth of all the deaths which take place in the metropolis, in persons above twenty years old, happen prematurely, through excess in drinking *spirits*. These pernicious liquors are generally supposed to have an immediate and specific effect on the liver; which has been found, after death, in drinkers of spirits, hardened or altered, as to its texture, discoloured, and diminished. It appears, however, that the stomach and bowels suffer first from the use of spirits; and that their baneful influence is afterwards extended gradually to every part of the body, producing the following symptoms.

1. Indigestion, attended with a disrelish for plain food; with frequent nausea, and oppressive pains at the stomach; together with an inexpressible sensation of sinking, faintness, and horror; and with sudden convulsive discharges from the stomach into the mouth, of a clear, acid, or sweetish fluid.

2. Racking pains, and violent contractions of the bow-



els. These symptoms often return periodically, about four in the morning, attended with extreme depression, or languor, a shortness of breath, and the most dreadful apprehensions.

3. In persons of a sanguine habit, tedious inflammations of the membrane which covers the bowels, producing intense pain, so that the slightest pressure on the belly cannot be endured.

4. Swelling of the body; emaciation of the limbs, with frequent cramps; and pains of the joints, finally settling in the soles of the feet.

These symptoms are succeeded by a degree of palsy, or, at least an incapacity of moving the limbs with any considerable effect.

5. Sallowiness of complexion, with dryness and scaliness of the skin.

As the powers of circulation are more and more impaired, the red vessels disappear from the white of the eye; the secretion of bile is imperfectly performed; and the small hairs of the skin fall off, leaving the surface, especially of the lower extremities, very smooth and shining.

6. Jaundice and dropsical swellings of the legs, with general redness or inflammation of the skin, terminating in black spots and gangranous ulcers.

7. Ulcers in the mouth, throat, &c. and an offensive smell of the breath, similar to that of rotten apples.

8. Profuse discharges of blood from the nostrils, stomach, bowels, kidneys, or bladder; and from the lungs, in persons of a consumptive habit.

9. An entire change in the state of mind. At first, low spirits, strange sensations, and groundless fears, alternate with unseasonable, and often boisterous mirth: a degree of stupidity, or confusion of ideas, succeeds. The memory, and the faculties depending on it, being impaired, there takes place an indifference towards usual occu-



pations, and accustomed society or amusements. No interest is taken in the concerns of others: no love, no sympathy remains. Even natural affection to nearest relatives is gradually extinguished; and the moral sense seems obliterated. These wretched victims of a fatal poison, fall, at length, into a state of fatuity; and die, with the powers both of body and mind wholly exhausted. Some, after repeated fits of derangement, expire in a sudden and violent phrenzy. Some are hurried out of the world by apoplexies: others perish by the slower process of jaundice, dropsy, internal ulcers, and mortification in the limbs."

MEAD

is an agreeable liquor, prepared of honey and water, with the addition of spices. Various methods are practised in the brewing of mead; which however, do not essentially differ from each other: the following is one of the most approved. Let the whites of six eggs be well incorporated with twelve gallons of water, to which twenty pounds of honey are to be added. These ingredients should boil for the space of one hour; when a little ginger, cloves, cinnamon, and mace, together with a small sprig of rosemary, are to be put into the liquor. As soon as it is cool, a spoonful of yeast ought to be added, and the mead, poured into a vessel, which should be kept full during the time of working. When the fermentation ceases, the cask ought to be closed, and deposited for the space of six or eight months in a vault, or cellar, of an equal temperature, and in which the liquor is not liable to be affected by the changes of the weather. At the end of that period, it may be bottled, and is then fit for use. A more simple, and, to some



palates, more agreeable method, is, to mix the honey in the proportion of one pound to a quart of water; which is to be boiled, skimmed, and fermented in the usual manner, without the addition of any aromatic substances. It ought to be preserved in a similar manner, and bottled at the expiration of the same period of time.

Mead was formerly the favourite liquor of the ancient Britons and Anglo Saxons. It still retains it's place at country feasts in the western parts of this island; where considerable quantities are brewed annually. Being a wholesome and pleasant beverage, it is far preferable to brandy, gin, or other pernicious spirits; tho' it does not always agree with the bilious, asthmatic, or those whose breast and lungs are in the least affected. But if it be kept for a number of years in proper vessels, and dry cellars, it acquires a flavour and strength equal to the best Maderia, or even Tokay wines: in this state, mead is a true medicine to the aged and infirm, when used with moderation.—*Domestic Encyclopedia.*

TABLE BEER.

Take fifteen gallons of water, and boil one half of it, or as much as can conveniently be managed; put the part of the water thus boiled, while it is yet of it's full heat, to the cold part, contained in a barrel or cask; and then add one gallon of molasses, commonly called treacle, stirring them well together: add a little yeast, if the vessel be new; but, if it has been used for the same purpose, the yeast is unnecessary. Keep the bung-hole open till the fermentation appear to be abated and then close it up. The beer will, in a day or two afterwards, be fit to drink. It is usual to put the tops of the Spruce Fir into the water which



is boiled for making this beer; it is then called Spruce beer. But tho' this be done at sea (when such tops can be obtained), on account of the scurvy; yet it is not necessary, and may very well be omitted, where they are not to be easily procured. Scurvy-grass, or other herbs, or drugs, used in making purl, gill-ale, or any other flavoured malt liquor, may be added at discretion. But a little of the outer rind of an orange-peel, infused in the beer itself, and taken out as soon as it has imparted a sufficient degree of bitterness, will both be found grateful, and assist in keeping the beer from turning sour. A very little gentian root, boiled in the water, either with a little orange-peel, or without, gives also a very wholesome, and pleasant bitter to this beer.—*Museum Rusticum*.

A SUBSTITUTE FOR BEER.

Take rye or wheaten bran, and boil it in soft water; then strain it, and fill a barrel with it; afterwards mix a leaven, eight days old, in it, and if the weather be hot, fermentation will take place in less than twenty-four hours; as soon as the foam that will arise from the bung-hole, begins to sink, stop it carefully up, and let the liquor rest for some days that it may become clear. When the bran has been hindered from acquiring any bad taste, this liquor is very agreeable, has a vinous and acidulous taste; it is, truly the lemonade of the poor.

So easy indeed is water made to acquire vinous properties, and to quench thirst, that it is unnecessary to rob the cattle of their bran; a little honey or sugar, and a few saccharine roots diluted in much water, might suffice.—

Parmenlier.

TO MAKE BEER OF TREACLE.

To eight quarts of boiling water put a pound of treacle, a quarter of an ounce of ginger, and two bay or balm leaves. Let these boil for a quarter of an hour, then cool and work it with yeast, in the same manner as other beer.

ANOTHER.

Take one bushel of malt, with as much water and hops as if two bushels of malt were allowed; put seven pounds of the coarsest brown sugar into the wort while boiling. This is as pleasant, as strong, and will keep as long without being sour or flat as if two bushels of malt had been put in. The two recipes above, by Dr. James Stonehouse, appeared in the *Gentl. Mag.* for January 1758; who adds, that the latter is the preparation used in the Shrewsbury Infirmary, and he does not hesitate to attest it's wholesome and nutritive properties.

ANOTHER.

To half a bushel of malt, add four pounds of treacle, and three quarters of a pound of hops; this will make twenty-five gallons of beer; the cost of which would not exceed twopence a gallon, if the materials were purchased to the best advantage. The beer will be good, in a fortnight, and fit for use, but not calculated for keeping in warm weather. "I have tried this receipt," says T. Bernard, esq. in the *Reports of the Society for bettering the Condition of the Poor*; "and found the beer very good." He justly observes, that it would be desirable that the poor should be able to supply themselves with beer of their own brewing, without being oblig-



ed always to recur to the alehouse. I am aware of the inconveniences of brewing in small quantities; but that would be compensated for by great advantages, and by the superior flavour of beer *brewed and drank at home*.

Bitter medicines, are frequently found useful by assisting the absorption of chyle, when the digestive functions have been weakened by disease, yet their too frequent use, must, in ways not immediately apparent, be injurious to the constitution. On

this principle Dr. Darwin is of opinion, that the "hop made use of in beer drank at our meals, may, as a medicine, be taken advantageously; but, like all other stimuli, must be injurious as an article of our daily diet; and by adding to the noxious quality of the spirit contained in malt liquor, must contribute to the production of various diseases." The

country people of West-Gothland in Sweden, employ the roots of Buck-bean, or *Menyanthes trifoliata*, for imparting a bitter taste to ale; for which purpose two ounces are equally efficacious as one pound of hops.

Dr. Darwin recommends the leaves as a substitute for hops; and adds they would be equally wholesome and palatable.

If the roots of the Garden Carrot be mashed and brewed like malt, they yield a sweet liquor, which being properly worked or fermented with yeast becomes a strong drink, like ale. In like manner

the roots of Parsley, Parsneps, and Skirret, may be employed.

The taste and colour of stale beer may be much improved, by adding a small quantity of the flour of the grain of Siberian Buck-wheat.

Alehouse keepers impregnate their malt-liquor

with *Cocculus Indicus*, Coriander seeds, and *Capsicum*; the last is not, however, very hurtful; it resembles ginger, and gives a pleasant warmth to the ale.

By putting small bits of ginger-root into an ale-barrel, the liquor will be found, in a short time, to have improved, and will continue more clear to the last.

It has been found, by experiment, that one pound of coriander seed imparts a quality by decoction, which stupifies and intoxicates in a much greater proportion than the quantity of ale produced from a bushel of malt.

VINEGAR,

of an excellent kind for family use, may easily be made by taking a five gallon cask, with a pretty large bung-hole at one end. Season it two or three days with common vinegar, then pour it out, and put into it four pounds of raisin stalks, and four ounces of ginger, bruised. Then take four gallons of good sound ale or wine, let this be just brought to boil with a very quick fire, and immediately add it to the stalks and ginger. Place the cask either in the hot sunshine, or near a fire, slightly corked, shaking it every day, and in a little time it will be converted into excellent vinegar.

ANOTHER.

To every gallon of spring water let there be allowed three pounds of Malaga raisins. Put them in an earthen jar, and place them where they may have

the hottest sun, from May till Michaelmas. Then pressing them well, tun the liquor up in a very strong iron hooped vessel, to prevent it's bursting. It will appear very thick and muddy, when newly pressed, but will refine in the vessel, and be as clear as wine. Then let it remain untouched for three months, before it be drawn off, and it will prove excellent vinegar.—*Evelyn's Acetaria.*

ANOTHER.

To every gallon of spring water add one pound and a half of the *coarsest* soft sugar, boil it a quarter of an hour, when luke warm add new yeast to it, work it four or five days; then tun it into a clean iron hooped barrel on raisin stalks, and bung it very closely up. If you make it in the fruit season, some green gooseberries may be put into the barrel, with the size of an hazle-nut of alum. It will require to stand eight months after tunning. By some attention to keeping the cask constantly well-closed after the first preparation, vinegar may be readily produced from such a sour taste. This vinegar will preserve all kind of pickles except Mushrooms and Walnuts.

YEAST.

A METHOD OF GENERATING YEAST.

The ingenious Mr. Thomas Henry of Manchester, found by experiment, that by the addition of some fixed air to a decoction of malt, in proper circumstances, real yeast might be produced, capable of rais-



ing bread, possessing every other known quality of yeast obtained by the usual mode of fermentation.

This process, however, on account of it's requiring a particular apparatus, and materials, with which the labouring class are in general unacquainted, has never, that we have heard of, been applied to any use in economy or arts. The account was published in the second volume of "Memoirs of the Literary and Philosophical Society of Manchester," 1785.

Since that time it has been discovered, that yeast may be actually produced at pleasure, from a decoction of malt, without the addition of fixed air, or any thing else whatever. This discovery was made by Joseph Senyor, servant to the Rev. William Mason of Aston, near Rotherham in Yorkshire, and is published in the eighth volume of the "Transactions of the Society for Encouragement of Arts," &c., who, after making the experiment, and finding it to succeed perfectly in every respect, awarded to him a bounty of twenty pounds. The discovery appears to be, "that yeast is not some peculiar and unknown substance, necessary to be added to wort in order to put it into a fermenting state; but that malt boiled in water will generate it, as the chemists say, *per se*, if the following circumstances be attended to.

1st, that the process be begun with a small quantity of the decoction. 2dly, that it be kept in an equal degree of heat. 3dly, that, when the fermentation is begun, it should be assisted and augmented with fresh decoctions of the same liquor."

The method is as follows.

"Procure three earthen or wooden vessels, of different sizes and apertures, one capable of holding two quarts, the other three or four, and the third five



or six: boil a quarter of a peck of malt for about eight or ten minutes in three pints of water; and when a quart is poured off from the grains, let it stand in a cool place, till not quite cold, but retaining that degree of heat which the brewers usually find to be proper when they begin to work their liquor. Then remove the vessel into some warm situation near a fire, where the thermometer stands between seventy and eighty degrees (Fahrenheit,) and there let it remain till the fermentation begins, which will be plainly perceived within thirty hours; add then two quarts more of a like decoction of malt, when cool as the first was; mix the whole in the larger sized vessel, and stir it well in, which must be repeated in the usual way, as it rises in a common vat: then add a still greater quantity of the same decoction, to be worked in the largest vessel, which will produce yeast enough for a brewing of forty gallons."

The Society say, after having repeated the above process, that "Some of this yeast, being mixed with a due proportion of flour, water, and salt, answered all the purposes intended, for bread; and might certainly have been equally well applied to brewing, in the common method. In fine, being pure and good yeast, it will answer all the intentions of that useful article."

TO MAKE YEAST.

Thicken two quarts of water with four ounces of fine flour; boil it for half an hour; then sweeten it with three ounces of brown sugar, not the brownest. When almost cold, pour it upon four spoonfuls of yeast into an earthen jar, deep enough for the yeast to rise: shake it well together, and place it for a day near the fire; then pour off the thin liquor at



top; shake the remainder, and close it up for use; having previously strained it through a sieve. To preserve it, let it be placed in a cool cellar, or hung at some depth, in a well. Some of this must always be kept to make the next quantity. As it is not quite so strong as yeast from ale, use rather more than four spoonsful, for making new yeast.

THE PROCESS OF MAKING YEAST,

as practised at Edinburgh.

Take one ounce of hops; boil them for an hour in one gallon of water; then pour the liquid upon four or five pounds of flour, and stir it very well into a paste. Do this about eleven in the forenoon. Let it stand till six o'clock in the evening; then add about a pint of yeast, to forward the fermentation, mixed well together. Next morning add as much more flour and water as will be sufficient to make it into dough; and in the afternoon it will be fit for setting sponges and baking. Reserve always a piece of the old dough to mix with the new batch, instead of the yeast; which is necessary only the first time, to hasten the process. The said quantity of hops will suffice for sixty quartern loaves.

TO MAKE POTATOE YEAST.

To a quart of potatoes, boiled and well mashed, add a teacupful of good yeast, and a spoonful of coarse brown sugar, with as much warm water as will bring the whole to the consistency of good yeast. This will ferment together in a few hours, and will be fit for use. When this quantity is half expended, more potatoes and sugar may be added, and in this manner it may be kept in a serviceable state, without any more yeast, for

many weeks. There must be a little more of this yeast allowed for the bread than of common yeast.

A METHOD OF CAUSING A VERY SMALL PORTION
OF YEAST TO SERVE THE PURPOSE OF BAKING
A LARGE QUANTITY OF FLOUR.

From Dr. Anderson's "Bee," vol. iii, p. 229.

"Take four table spoonful of pure water, heated to the warmth of new-drawn milk; add thereto some flour and about a tea-spoonful of good yeast, stirring and mixing it well, till it be of the consistence of thick cream or batter for making pancakes: cover it up and set it in a place where the temperature is moderate, that is, in a warm chamber in winter, and in one without fire in it, or that is not exposed to the sun in summer. In six or eight hours a fermentation will commence, the surface will heave up, and at the end of twelve or fourteen hours, it will have acquired the appearance and consistency of fine light yeast.

You may then add to it twice as much water, as you employed at first, still milk warm. Stir the whole, so as to mix it thoroughly; then add more fresh flour, and stir it up, as at first, till it be again of the consistence of batter; cover it up again, and let it stand as before; the fermentation will immediately commence, and in a few hours, it will again assume the appearance of fine light yeast. If you have now a quantity sufficient for your purpose, it may be used instead of yeast for bread; but if you still want more, you may again double the quantity, by adding as much water as you had employed at both the former times, and mixing it up with flour, as before, and leaving it again to ferment. How often this process may be thus repeated," says Dr.



Anderson, "I cannot tell. I am however certain it may be repeated three times, as here described, without any risk of becoming sour; and the time required for this purpose, will be about twenty-four or thirty hours. One tea spoonful of yeast my recipe said, might serve for a bushel of flour. When you have obtained as much of this kind of yeast as would be sufficient of the best common yeast, to bake your quantity of bread, you need not proceed farther. Mix up this yeast in your paste, as you would do any other; and when it is well kneaded into it, form your paste into the shape you mean your bread to be; but take care to let it lie upon the board for some hours after it has been kneaded up, before it be put into the oven. Then let it be properly baked, and you will have, if your flour has been good, fine, sweet, and light bread, perfectly free from any taste of sourness, and equally free from the bitterness which is often communicated to bread by yeast from beer. The above is not a fanciful receipt founded on theory, but one of which I can speak with certainty, having witnessed it's use in my own family for more than a dozen years. In the country, families are often subjected to great difficulty in obtaining new wheaten bread from the want of fresh yeast; this induced me to have this method tried which is no invention of my own, but picked up accidentally, and after so many years' experience of bread made of it, I can speak with certainty. Allow, me, however, to observe, that in this method of baking, as well as in every other mode, much depends on the judgment, attention, and practice of the baker. An unskilful person may make it very bad; but by attention and care, those of my family who took charge of that department, had acquired such a know-



ledge of the circumstances that varied the process, that I could, when I pleased to order it, have bread of any kind I required. It could be made close and weighty, tho' well baked, for those who desired it so, or light and spongy to any degree required, so as even to leave scarcely any crumb at all, to those who liked crust better than the crumbs of a roll. In short, by this process, the bread could be made to suit the taste of the person who was to eat it, whatever it was. I cannot specify all the particulars which produced those properties, for they fell not immediately under my own cognisance. They were the charge of one who was more attentive, and more capable of judging than myself, but who now, alas! can never communicate any part of that knowledge to others. If any one try this method of augmenting yeast and do not succeed, the failure must be attributed to want of practice, or slovenly carelessness, and to nothing else."

METHOD OF PRESERVING YEAST.

It is done by drying, in which state it may be kept for a long time, without losing it's fermentable property. It is performed in the most simple manner: the only difference in the methods used for that end, consists in the choice of utensils or vessels employed for the purpose. Where only smaller quantities are required, a whisk or rod of twigs is used. This is dipt in the yeast (which is put into a deep vessel) and then hung up till it be dry. The operation is repeated till the whole of the yeast be taken up, and reduced to a dry mass, adhering to the whisk, which is then to be kept in this state, in some proper place, till it be wanted for use. Where greater quantities of yeast are required to be preserved, the most con-



venient method is to fill a large wooden bowl with it and to place the bowl so filled in a gentle heat before the fire, till it grows dry. A crust of yeast will then be formed against the sides of the bowl; after which the bowl must be again filled, and the drying performed as before. The same must be repeated till the bowl has a considerable quantity of dried yeast in it, which may be scraped out and put into small jars, such as are used for preserves and pickles. In this manner it may be kept from air and moisture.

When the yeast, thus preserved, is wanted for use, it must be cut off the mass on the whisk, or in the bowl or jar, and rubbed to powder. Warm water being added to it, in a proper vessel, they must be well beaten together, and suffered to stand two or three hours, when the mixture will gain the appearance and qualities of new yeast, and be fit for the same purpose,

Where yeast cannot be procured, a leaven may be used in it's stead; but bread made with this is not so good as if prepared with yeast. When yeast is required to be preserved a short time only, for instance, from one baking day to another; put it into a stone bottle, and tye down the cork. It will keep a fortnight.

If the bottle be immersed in running water, the yeast will thereby be preserved good for three months.

ANOTHER,

with an economical Mode of using Yeast.

Take good clear yeast, not over bitter, but yet a little so, because it will keep better. Put it into a coarse linen or fine woollen bag, and by a gentle and increasing pressure in a cloth or napkin squeeze or twist out the thin liquid till the remainder is a dryish substance like a conserve, which must be carefully preserved



by potting it closely. When you would raise any quantity of dough, as a bushel or more, take a teaspoonful of this yeast, and mix it thoroughly in a pint of warm water. Put your flour into a kneading trough; make a hole in the middle large enough to hold two gallons of water; pour the mixture of water and yeast into the hole, and with a clean stick or spatula, stir it till of the consistence of batter for a pudding. Strew some dry flour over it, and leave it for an hour, or till the liquid has broken the crust formed by the sprinkled flour. Then add another quart of warm water, strewing flour over it as before, and leave it two hours. Then add three quarts of warm water, leaving it for three or four hours. You may then knead up the whole, and in four or five hours bake it. It will be found of a proper lightness. As any other employment may be pursued during the intervals, there is in reality no time lost by the slowness of the process.





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